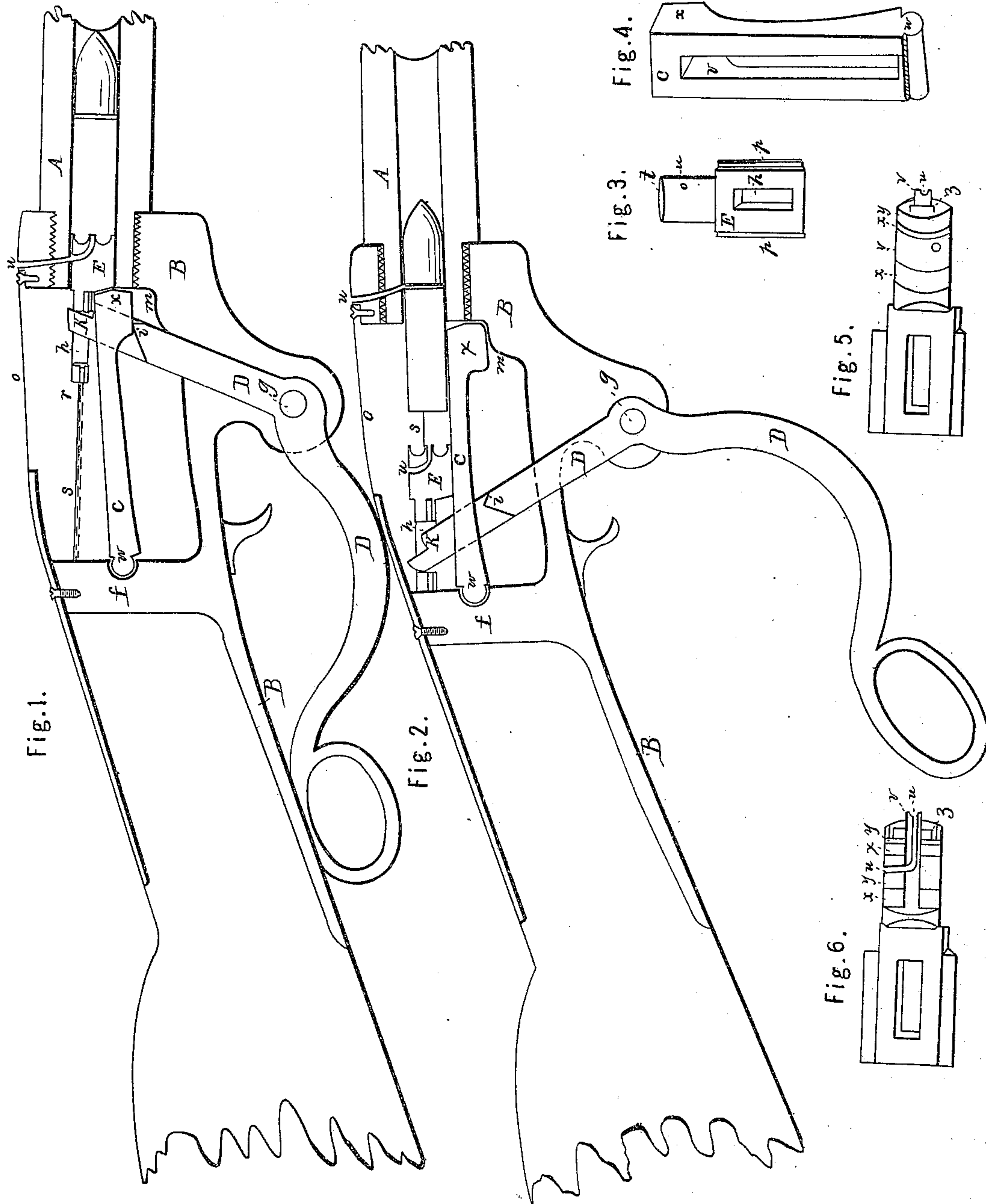


G. H. SOULE.
BREECH LOADING FIREARM.

No. 20,825.

Patented July 6, 1858.



Inventor.
George H. Soule

UNITED STATES PATENT OFFICE.

GEORGE H. SOULE, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 20,825, dated July 6, 1858.

To all whom it may concern:

Be it known that I, GEORGE H. SOULE, of Jersey City, Hudson county, and State of New Jersey, have invented certain new and useful Improvements in Breech-Loading Guns; and I do hereby declare the following to be a full specification and description of the same.

The nature of my improvements consists in the mode of constructing the breech so as to insert the cartridge, and by means of the lever which acts on the plunger force it tight onto the bore; but for more particular description of my invention I refer to the accompanying drawings, forming a part of this specification, the same being referred to by letters wherever they occur.

Figure 1 represents a longitudinal section of the gun with the cartridge forced into the bore, ready for firing or discharging. Fig. 2 represents the same with the lever thrown back and the plunger withdrawn from the bore, ready to receive the cartridge. Fig. 3 represents the plunger detached from the gun. Fig. 4 represents the brace which holds the plunger to its place when the gun is discharged.

In Fig. 1, A represents the barrel of the gun. B represents the breech-piece. C represents the brace. D represents the lever. E represents the plunger.

To represent the action of this invention, I refer, first, to the breech-piece B, which may be made of iron or steel or any other metal. This is so constructed as to form a foot-piece, *f*, for the brace C, so that when the gun is discharged the force acting on the plunger E is held to its place by the brace C, which rests against the foot-piece *f*. The lever D works on a pin, *g*, passing through a slot or groove in the brace C into a corresponding mortise, *h*, in the plunger E. This is so constructed as to form a trigger-guard, while at the other end on each side are two cams, *i i*, which act on the brace C. This lever is made with a notch, K, so that when the plunger is forced to its place the notch slips under the plunger E, allowing the lever to pass forward beyond the point at which the plunger stops, bringing the cams *i i* in contact with the brace C, elevating the brace so as to hold the plunger E to its place, the mortise in the plunger E being long enough to allow the lever D to travel back far enough to relieve the brace C, which is held to its place by the cams *i i*, and

allow it to fall down to its place *m* before the lever D acts on the plunger E, which is then drawn back, as represented in Fig. 2. The cartridge is then put in through the opening in the top O forward of the plunger E. The lever D is then drawn back, as described in Fig. 1, forcing the cartridge into the bore.

Fig. 3 represents the plunger detached from the gun. *h* represents the mortise through which the lever D passes. This is made with a flange on each side *p p*, which works in a groove, *s*, cut in the wall of the breech-piece, (represented by a line,) so as to travel backward and forward, steadying the end *t* of the plunger E. The end of the plunger E which goes into the barrel is turned down sufficiently small to allow collets made of leather or any other elastic substance to be put on or placed between collets or washers made of steel, with a hole in the center. These are placed on the center, and are held fast by a small nut, these collets being loose. When the gun is discharged, the gas pressing back against the steel collet, which is made of steel, forces back against the leather collet or ring, pressing the leather against the barrel, thereby preventing any escape of gas. When the pressure is relieved by the ball having left the gun, the leather contracts, leaving the plunger loose, allowing it to be drawn from the barrel with ease.

And in the accompanying drawings, *h* represents the fuse-hole. V is the center upon which the collets are placed. X represents the collets of leather. Y represents the steel collets. The end of one is cupped out, as heretofore described; and Z represents the nut which holds them on.

The end of the plunger *t* is turned so as to form a deep groove around a center through which passes the fuse-hole *u*. When the plunger E is forced forward, this center penetrates the cartridge and communicates with the powder. When the discharge takes place, the metal being thinner on the outside of the groove, the force of the powder causes it to expand against the sides of the bore, thereby making a tight joint, preventing the escape around the plunger E.

Fig. 4 represents the brace C detached from the breech-piece. *v* represents the slot or groove through which the lever passes. This is made with the end *w* so as to fit in the sock-

et on the foot-piece *f*. The other end has a projection downward, *x*. This is made so as to come in contact with the cams *i i* on lever *D*, by which it is elevated to its place when the plunger *E* is forced into the bore.

The above is the description of my invention and the mode of constructing and using the same.

What I claim a right to secure Letters Patent for is—

The peculiar construction and mode of op-

erating the plunger *E* and securing it to its place while the gun is being discharged; also, the brace *C* and the connection of the breech-piece *B* and the lever *D*; also, the cams *i i* as applied to raising the brace, and any similar device by which the same results as are herein set forth are substantially obtained.

GEORGE H. SOULE.

In presence of—

L. E. BULKELEY,
J. ALSTON MARSH.