

(No Model.)

3 Sheets—Sheet 1.

N. R. DAVIS.
BREECH LOADING FIRE ARM.

No. 346,536.

Patented Aug. 3, 1886.

Fig. 1.

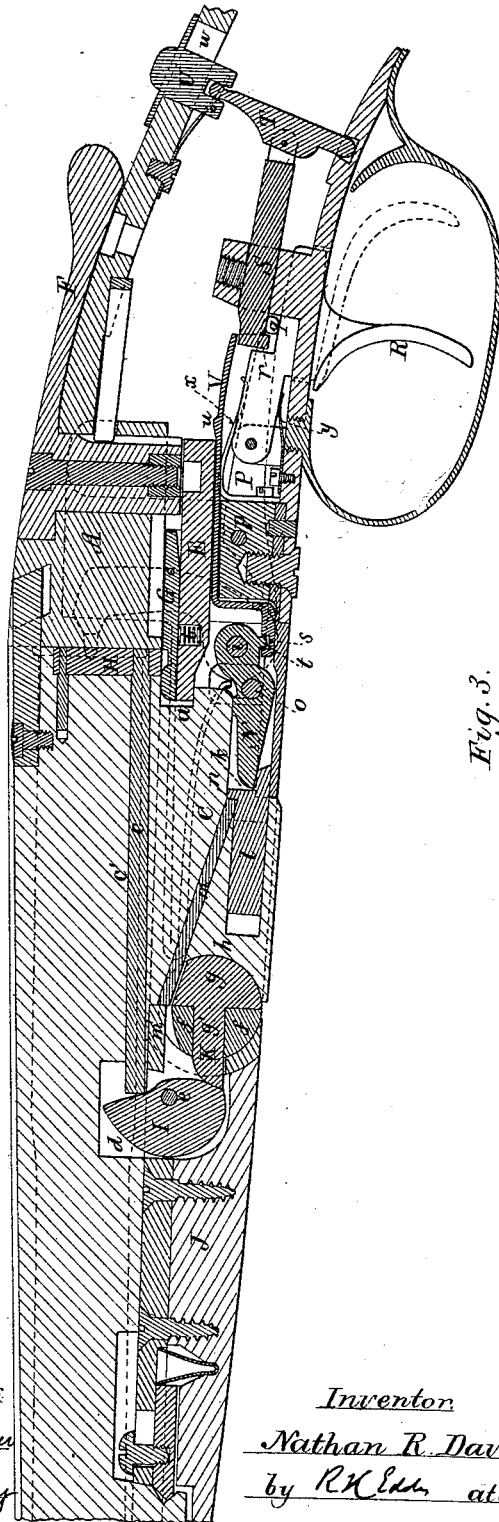
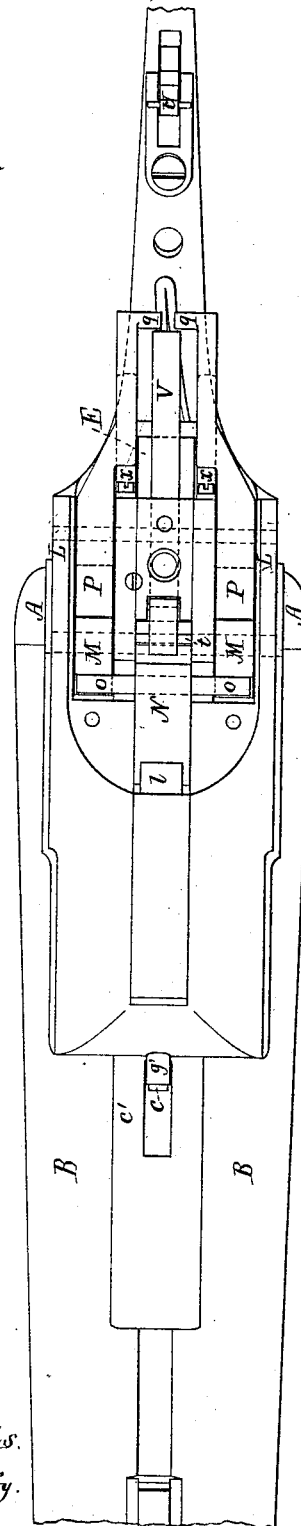


Fig. 3.



Witnesses
L. N. Piper
R. B. Ferry

Inventor
Nathan R. Davis.
by R. H. Em. att'y.

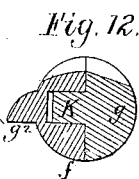
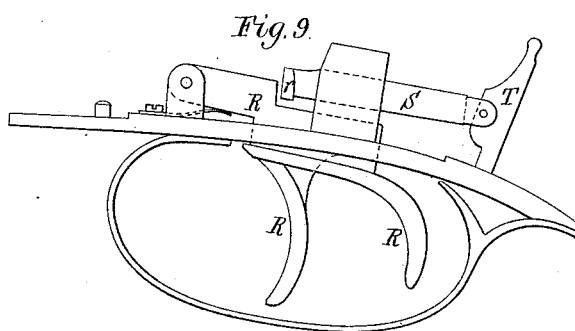
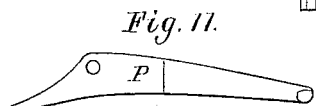
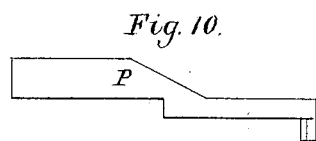
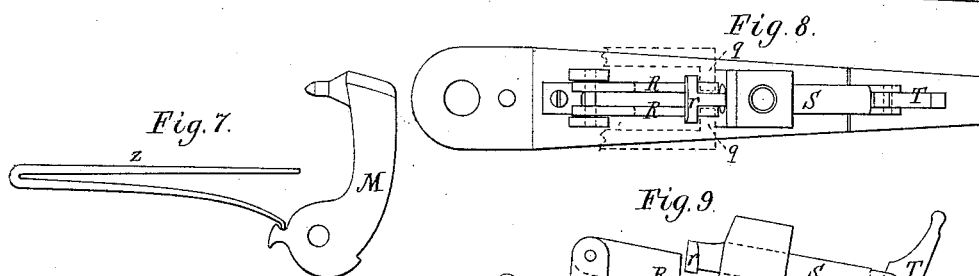
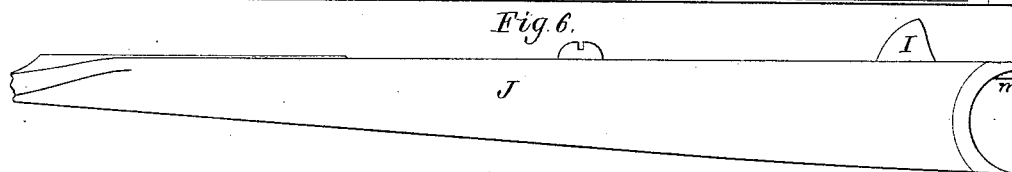
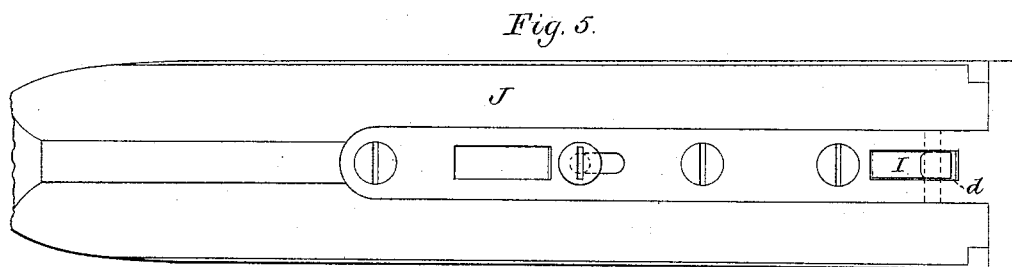
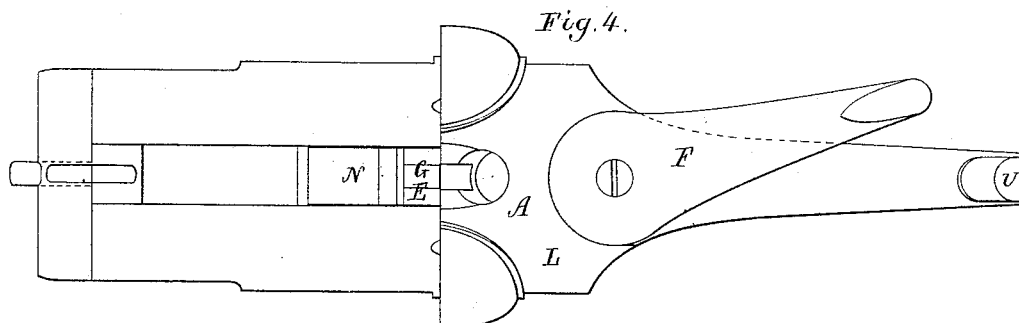
(No Model.)

3 Sheets—Sheet 3.

N. R. DAVIS.
BREECH LOADING FIRE ARM.

No. 346,536.

Patented Aug. 3, 1886.



Witnesses
S. N. Piper
R. B. Tracy

Inventor
Nathan R. Davis
by R. H. Day atty.

UNITED STATES PATENT OFFICE.

NATHAN RUSSEL DAVIS, OF FREETOWN, MASSACHUSETTS.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 346,536, dated August 3, 1886.

Application filed April 26, 1886. Serial No. 200,167. (No model.)

To all whom it may concern:

Be it known that I, NATHAN RUSSEL DAVIS, of Freetown, in the county of Bristol, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

10 Figures 1 and 2 are longitudinal sections of parts of a double-barrel breech-loading gun provided with my invention. In Fig. 1 the barrels are shown in a firing position relatively to the stock, whereas in Fig. 2 such barrels are represented as raised at the rear ends above the breech of the stock, or in a position for being loaded. Fig. 3 is a bottom or under side view of the breech-frame or lock-case as it appears without the trigger-supporting carrier. Fig. 4 is a top view of the said breech-frame or lock-case as separate from the barrels and the joint-piece J. Fig. 5 is a top view, and Fig. 6 a side view, of the said joint-piece J. Fig. 7 is a side elevation of one of the hammers with its mainspring. Fig. 8 is a top view, and Fig. 9 a side view, of the trigger-supporting carrier, the triggers, and their locking-bolt. Fig. 10 is a top view, and Fig. 11 a side view, of one of the sears. Fig. 12 is a vertical section of the joint-pivot *f*, with the piece K arranged wholly within it, the projection or cam *g'*, for operating the cam I, being shown as secured to the said joint-pivot.

35 The nature of my invention is defined in the claims hereinafter presented, the said invention being applicable to single-barrel as well as double-barrel breech-loading fire-arms.

40 In the drawings, A denotes the stationary breech, and B and B the two barrels, they being connected in the usual manner, the planes of section of Figs. 1 and 2 being midway between the two barrels.

45 C is the recessed locking projection, provided with the notch *a*, adapted to receive and co-operate with the bolt E, whose retractive lever is represented at F. Within such bolt is its latch G and its operative spring *b*, such bolt, latch, and locking projection and retractive lever being no part of my present invention, but auxiliary thereto for locking the barrels to the breech.

The spent-cartridge-shell discharger of the barrels is shown at H. Its shank *c* slides freely in the metallic connection *c'* of the barrels, and bears at its end against a cam, I, pivoted within a chamber, *d*, in the said connection and in the removable joint-piece J, the pin on which such cam turns being shown at *e*. Within the joint-pivot *f* of the barrels and stock there is an auxiliary cam or piece, K, 60 that, formed with a head, *g*, and shank *g'*, as shown in the drawings, projects beyond the said pivot and against the cam I. This auxiliary cam or piece K has its head *g* in the form of the segment of a circle, having a diameter equal to that of the pivot *f*, such pivot being recessed to receive and hold the cam, with the periphery of its head bearing against that of the semicircular recess *h* in the front end of the locking projection C. 70

In case of wear of the bearing parts of the joint, so as to prevent the rear ends of the barrels bringing up closely against the breech when the latter may be closing such ends, the proper contact of the barrels and breech may 75 be secured or effected by inserting between the head *g* and the chord or bottom of the recess in which such head is placed one or more thin pieces of metal or other suitable material. In turning down the barrels relatively to the stock or lock-case, the cam K will turn the cam I so as to cause it to force backward the cartridge-shell discharger.

80 In some cases the piece K may be wholly within the joint-pivot, (see Fig. 12,) and the part of the shank that extends beyond the pivot and against the cam I may be fastened to the pivot, such being as shown in said Fig. 12; but it is preferable to have the piece K and the said part in one piece, as represented. 85 90

Each barrel has within the lock-case L a hammer, M, (shown in Figs. 1 and 2 by dotted lines,) it being wholly inclosed within the said case. These hammers turn on a stationary pin, *i*, which goes through an arm or lever, N, formed and arranged as shown, and extending into a notch, *k*, in a slide, *l*, within the locking projection C. A rod, *m*, going obliquely through the projection C, and abutting at one end against a shoulder, *n*, extending from the slide *l*, and at the other against a shoulder, *m'*, extending from the removable 95 100

joint-piece J, serves to hold the slide *l* in its proper position to act against the arm N. On removing the joint-piece J from the barrels the notched slide *l* will be free to be slid or forced back in its recess by the arm N and out of the way of the latter, in order that such arm and slide may not prevent the separation of the barrels from the lock-case.

A pin, *o*, going through and fixed in the arm N, and extending in opposite directions therefrom into notches in the tails of the two hammers, causes the hammers, under the movement of the arm N that takes place when the barrels are turned down, to be cocked. On the hammer being forced back to a cocking position it will be caught and held in such position by a sear, P, which is a lever, whose fulcrum is shown at *p*. The front arm of the sear is wedge-shaped to enter a notch in the hammer. To each trigger R there is such a sear, against a stud, *q*, projecting from the rear arm of which the trigger bears.

In order to lock the triggers to prevent either from accidentally operating its sear, there is a bolt, S, arranged, as represented, in the lock-case, such bolt at its rear end being jointed to a lever, T, jointed to a sliding button, U, projecting upward through the lock-case. On retracting the button, so as to retract the bolt, a downward projection, *r*, from the head of the bolt will be carried directly over the studs of the sears, so as to prevent each of such sears from being moved by its trigger.

There is arranged in front of the bolt S an auxiliary bolt, V, into a notch, *s*, in which a rib, *t*, from the arm N extends. A small inclined plane or cam, *u*, projecting upward from the bolt V, serves, by its action against the bolt E, when the latter is drawn backward by its lever F, and the bolt V is drawn forward, (which occurs during the downward movement of the breech,) to depress the said bolt V down in front of the bolt S, in order for the auxiliary bolt, while being forced backward, (which takes place when the breech is raised,) to force backward the bolt S to its position for locking the sears. As the cam *u* passes beyond the bolt E the bolt V, which is a spring, will, by its

inherent elasticity, be forced upward above the bolt S, in order to permit the said bolt S to be advanced by moving forward the slide-button U.

In each of the Figs. 1 and 2 the bolt S is shown in its advanced position; but in the act of closing or turning up the barrels the bolt S by the bolt V will be moved backward to lock the sears, in which case the slide-button will at the same time be moved backward to the rear part of its slot *w*. Preparatory to firing the gun the button is to be moved forward in its slot, so as to cause the bolt S to unlock the sears.

To each hammer there is to be a mainspring, *z*, to throw it forward. So to each sear there is a spring, *x*, to keep or press it up to the hammer. A small spring, *y*, serves to keep the trigger up to the stud of its sear.

I claim—

1. The combination of the piece K, having the segmental head *g* and shank *g'*, the joint-pivot *f*, the piece K being arranged in the pivot *f*, the recessed projection C, carrying the pivot *f*, the cartridge shell discharger H, and its cam I, the last arranged within the gun between the discharger and the pivot *f*, and engaging the shank *g'* of the piece K, as set forth.

2. The combination of the hammer M, the lever N and its pin *o*, the notched slide *l* in front of and engaging the lever N, the removable joint-piece J, having the shoulder *m'*, the recessed projection C, and the rod *m*, the projection being between the parts J and N and containing the rod *m*, which bears against the parts *m'* and *l*, as set forth.

3. The combination of the sear or sears, the locking-bolt S thereof, provided with mechanism for moving it, as described, the lever or arm N, applied to the triggers, the auxiliary bolt V, having the inclined plane *u* and engaging the bolt S and lever N, and the bolt E above the bolt V and to engage therewith, all as set forth.

NATHAN RUSSEL DAVIS.

Witnesses:

R. H. EDDY,

R. B. TORREY.