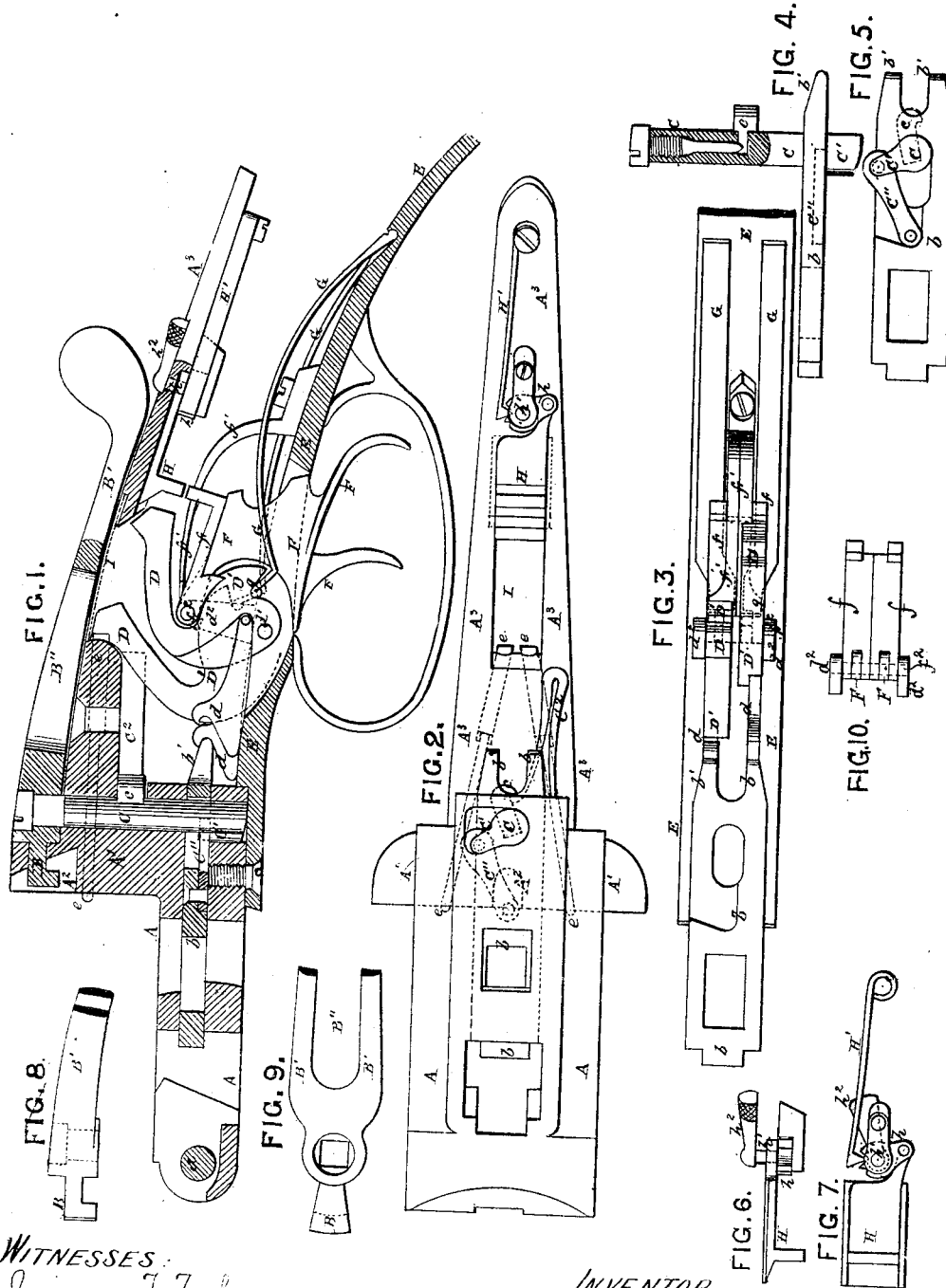


(No Model.)

J. MAC NAUGHTON.
BREECH LOADING FIRE ARM.

No. 264,723.

Patented Sept. 19, 1882.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES MACNAUGHTON, OF EDINBURGH, SCOTLAND.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 264,723, dated September 19, 1882.

Application filed May 12, 1881. (No model.) Patented in England July 12, 1879, No. 2,848.

To all whom it may concern:

Be it known that I, JAMES MACNAUGHTON, a subject of the Queen of Great Britain and Ireland, and residing in the city and county of Edinburgh, Scotland, have invented certain Improvements in Breech-Loading Fire-Arms, (for which I obtained Letters Patent in Great Britain, No. 2,848, dated July 12, 1879,) of which the following is a specification.

My invention relates to improvements in the construction of the "action" of breech-loading fire-arms; and the object of my invention is to so construct such action as to render the weapons safer and more convenient in action, as well as more durable and efficient, than as hitherto constructed.

In the accompanying drawings, Figure 1 is a longitudinal section of a double-barreled gun action according to my invention; Fig. 2, an inverted plan view with the trigger-plate, triggers, hammers, and connecting parts removed; Fig. 3, a plan view, showing the trigger-plate with the hammers, sears, and sear-springs; Figs. 4 and 5, a side view partly in section, and a plan, respectively, of the locking and pushing bolt; Figs. 6 and 7, views of the safety-bolt hereinafter referred to; Figs. 8 and 9, views of part of the locking hand-lever; and Fig. 10, a plan view of the sears, showing the manner of pivoting the triggers on the same pin with the sears.

The breech ends of the barrels of the gun are pivoted or hinged to the bed part A of the break-off or lump A', with the usual gripping-pieces projecting down from the center rib between the barrels through the slots in the bed part A. The upper part of the rib between the barrels is extended backward to fit into a vertical segmental slot, A², in the face of the break-off A', and a horizontal slot is formed in the barrel-rib, into which a horizontal swiveling segmental bolt, B, enters to lock the barrels. This bolt B forms part of the top hand-lever, B', or it may be fixed on its vertical spindle C, and it is actuated by swiveling the hand-lever B', which turns the spindle C partly round, and also actuates the sliding double grip-bolt *b* by means of an arm or lever, C', on the lower end of the spindle C, connected by a link, c'', to the bolt *b*, as shown particularly in Figs. 4 and 5. The spindle C extends downward in the lump A' to the trigger-plate

E, so as to have a firm and extended bearing, and, passing through a slot in the bolt *b*, has at its end an arm, C', connected to the bolt *b* by a link, c'', in a recess in the under side of the bolt, this link admitting a free movement of the bolt with but little friction. The moving or swiveling of the hand-lever B' to one side frees the barrels from the swiveling locking-bolt B, and also draws back the double grip-bolt *b* till the slot in it comes in line with those in the bed-piece A, to release the gripping lumps or pieces on the barrel-rib and allow the barrels to be hinged out for the withdrawal of the spent cartridges and the insertion of charged cartridges. The bolt *b* is forked at the rear end, *b'*, and acts on pushers *d d* jointed on the hammers D D, and the same action of the hand-lever B' on the bolt *b* through the link c'' causes it to act on these pushers *d d* to press back the hammers D to full-cock simultaneously. The bolts B and *b* and the hand-lever B' are brought back to and kept in their normal positions, locking the barrels by means of a spring, C², the end of which bears against a stud or pin, *e*, fitted in the vertical spindle C, as shown in Fig. 4.

The hammers D and tumblers D', which are combined, are centered on a pin, *d'*, near the center of the gun and fitted in slots in the trigger-plate E. The action is constructed with the hammers D D pivoted, as shown, on the pin *d* low down in the strap of the trigger-plate E, and the pistons *e e* are carried through the strap of the action near the center of the gun, converging from the centers of the barrels to near the center of the action, as shown by dotted lines in Figs. 1 and 2, and as high as possible, so that the hammers D D have the greatest possible radial sweep and powerful effect in striking the pistons *e e*.

The sears or sear-levers *f f* are mounted close over the tumblers D' on a pin, *f*², passing through eyes in the sears, and screwed or fitted in the feathers *d*² projecting up from the trigger-plate E. A single sear-spring, *f'*, fixed to the trigger-plate E, is provided, and is split down the center in front to act independently on both sears *f f* for retaining the hammers D at full-cock, and the sears fit over and press on the triggers F. The triggers F are hung on the pin *f*², to which the sears are jointed or centered, the ends of the sears being forked

and the upper ends of the triggers F reduced, and entered between these forked ends, so that the pin f^2 can be passed through to retain both triggers and sears, as is indicated in Fig. 3, and the triggers thus truly centered.

The hammers D D are actuated to strike the pistons $e e$ by means of mainsprings G G, formed as single bows, compressed longitudinally when the hammers are cocked. The front ends, g , of these springs G are bent or inclined upward, and have a pushing action on the tumblers and hammers. The back ends of the springs G are curved down and forced into an undercut notch in the upper face of the trigger-plate E. These springs G increase in power as the hammers approach to strike the pistons $e e$, causing the hammers to strike a sharp blow, and they also lessen the force required to actuate the main hand-lever B' in cocking the hammers.

A safety bolt, lever, or catch, H, is provided for securing the triggers by preventing the rise of the sears $f f$ resting on them, and consequent accidental discharge of the gun. This safety-bolt H, which is particularly shown in Figs. 6 and 7, is fitted to slide in a dovetailed groove in the rear strap, A³, of the gun, and is jointed at its ends to a notched lever, h , on a pin, h' , to which a small thumb-lever, h^2 , is fitted over the rear strap, A³, and just behind the main hand-lever B'. When the hammers D are pressed back to full-cock they strike against the end of this safety-bolt H and push it back forcibly into the position shown in Fig. 1, to cover and automatically lock the sears $f f$ and prevent the trigger being drawn. When the gun is to be fired the thumb-lever h^2 is pressed to one side, and acting through the lever-arm h it pushes the safety-bolt H forward clear of the sears, and allows the trigger to be drawn. The lever h and bolt H are retained in either position by means of a spring, H', whose end bears into notches in the boss or center of the lever h , which also, by forcing itself into one or other of the notches, prevents the bolt H assuming an intermediate position.

An aperture, I, is formed in the rear strap, A³, and is fitted water-tight with a pane of plate-glass or mica to enable the person using the gun to see whether or not it is at full-cock.

The main hand-lever B is also formed with a slot or opening, B'', where it would otherwise cover the aperture in the rear strap.

I do not desire to claim broadly a breech-loading gun in which the drawing back of the locking-bolt releases the barrels and simultaneously cocks the hammers; but

I claim as my invention—

1. The combination of the pivoted barrels, break-off, bed part, slotted locking-bolt b ; and hammers with spindle C, passing through a slot in the locking-bolt, and link c'' , connecting the spindle with the bolt, the latter cocking the hammers when it is drawn back to unlock the barrels, all substantially as described.

2. In a breech-loading fire-arm, the combination of the sears $f f$, having forked ends, with pivot-pin f^2 and triggers F F, having reduced ends adapted to said forked sears and mounted on the same pivot-pin.

3. The combination, in a breech-loading fire-arm, of the hammers, triggers, and sears $f f$ with sliding safety-bolt H, notched lever h , pin h' , and thumb-lever h^2 , all substantially as described.

4. In a breech-loading fire-arm, the combination of the hammers D D, pivoted close together near the center of the gun, on the strap of the trigger-plate, with the pistons $e e$ passing through the strap of the action and converging from the centers of the barrels to the center of the action, all substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES MACNAUGHTON.

Witnesses:

WALLACE FAIRWEATHER,
ALEX. FORBES.