(No Model.)

J. TONKS.

BREECH LOADING FIRE ARM.

No. 254,727. Patented Mar. 7, 1882.

Fig. 1.

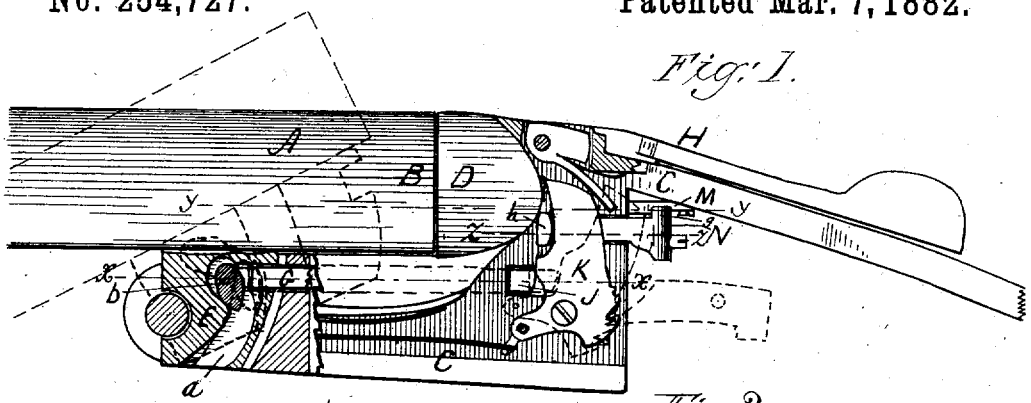


Fig. 2.

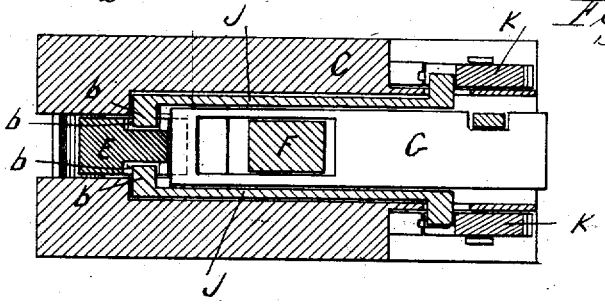


Fig. 3.

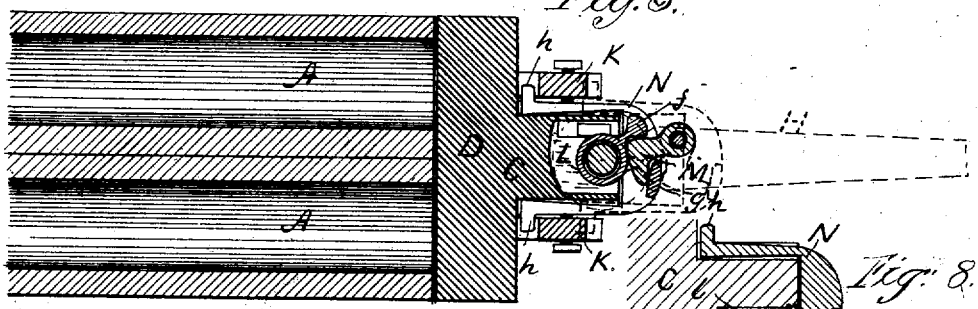


Fig. 8.

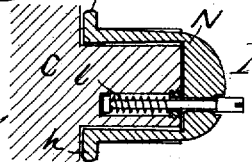


Fig. 6.

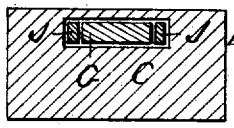


Fig. 7.

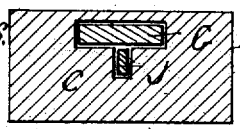


Fig. 4.

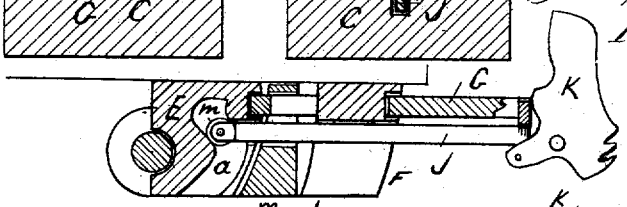
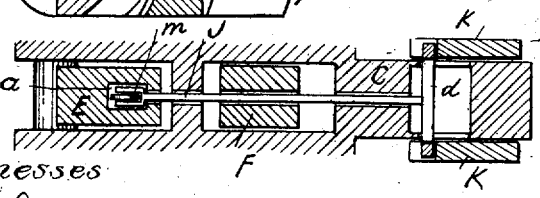


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH TONKS, OF MALDEN, MASSACHUSETTS.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 254,727, dated March 7, 1882.

Application filed June 13, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH TONKS, of Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a full, clear, and exact description.

This invention relates to that class of breech-loading fire-arms having the barrel at its breech end hinged to the front end of the stock, so that the barrel may be tilted upon the stock to open its breech for the insertion of the cartridge, and to close and there secure it against the stock in readiness for being discharged when so desired.

The invention consists in a construction and arrangement of parts for cocking the hammer from the swing of the barrel upon the stock, and for cocking the hammer independently of the swing of the barrel upon the stock, all substantially as will hereinafter appear.

In the accompanying plate of drawings this invention is illustrated, Figure 1 being a side elevation and vertical longitudinal section in part; Fig. 2, a horizontal section on line *x x*, Fig. 1; Fig. 3, a horizontal section on line *y y*, Fig. 1. Fig. 4 is a vertical longitudinal section illustrating a modification to be hereinafter described, and Fig. 5 a horizontal longitudinal section of same; Figs. 6 and 7, detail cross-sections; and Fig. 8, a detail horizontal section on line *z z*, Fig. 1.

As illustrated in the drawings, there are two barrels arranged side by side, as usual in "double-barreled" guns, so called; but it will be obvious the construction and arrangement of the parts as hereinafter described are as well applicable to a single as a double barreled gun.

In the drawings, A represents two barrels, arranged side by side, as usual; and B, their common breech end, open at each barrel, to be there charged with a cartridge, as desired; C, the portion of the stock making the connection for the barrels to the stock proper, which, as it is otherwise of the usual form and construction, it is not thought necessary to show in the drawings; D, the rear end of the stock C, and the end at and by which the open breech ends of the barrels A are closed, and the said barrels have a construction and arrangement together for the latter to be opened from and closed against the former, and when so closed securely fastened, all as is particularly described in my application for Letters Patent of the United States, filed April 4, 1881, and as it forms no part of this invention it is deemed sufficient in this application to only refer to such parts generally.

E and F are the lumps on the barrel, and G the bolt which interlocks with such lumps, and through such interlock holds the barrels closed. This bolt is operated from the lever-handle H, all as before. The forward lump, E, has a cam-shaped groove, *a*, in each side of it. In each of such grooves fits the head *b* on the forward end of a bar, J, arranged to slide in the stock C in a parallel line with the slide of the bolt G, and at its rear end to abut against the hammer K of one of the barrels. Each cam-groove *a* is shaped, and each bar is also arranged, as described and shown, so that the swing of the barrels to open their breech ends will force the bars J in the proper direction to raise and cock the hammers, as shown in dotted lines, Fig. 1, and the swing of the barrels to close their breech ends will carry such bars J back to their normal position, and thus leave the hammers to their proper operation. These slide-bars are arranged at each side of the bolt, and in the same slot provided for such bolt.

The arrangement of parts above described is shown in Figs. 1 and 2, and in Figs. 4 and 5 a modification of such arrangement is shown. This modification consists in substance in the use of a single slide-bar, J, for the two hammers, instead of two, as before specified. This bar J, at its forward end, travels in a suitable cam-slot, *a*, of the forward lump, E, through the lump F, and at its rear end has a cross-bar, *d*, reaching across from one hammer to another, and in suitable position to operate on both hammers, as described, and as shown in Figs. 4 and 5.

L is the hub to the handle-lever H. This hub has a side arm, *f*, so that when the lever H is in its normal position, as shown in Figs. 1 and 3, it lies against a lever, M, fulcrumed to the stock C, which in turn is engaged with the cross-piece *g* of a horizontal stirrup-shaped slide-frame, N, the two arms of which have each

a side projection, *h*, each in position to rest against the front edge of each hammer when the hammers are at rest. This stirrup-slide N works in one direction of its movement against and in the other direction with a spring, *l*. In the swing of the lever-handle H in one direction its arm *f* works against the lever M, and this lever upon the stirrup-slide N, and thus such slide is moved in the direction for it to pull and swing the hammers in a direction to cock them, as shown in dotted lines in Fig. 3. This movement of the slide N is against its spring *l*, and when the handle-lever is released the reaction of such spring throws the slide back to its normal position. In the swing of the lever-handle H in the opposite direction to that above described it works free and clear of the lever M, and thus has no action upon it, and consequently upon the hammers K, but otherwise works as in my said application to unlock the barrels and stock.

The operating mechanism above described is in connection with two hammers, and obviously it would be substantially the same for a single hammer.

A roll, *m*, is located in the end of the slide-bar under the bolt G, to reduce the friction of the lump against the bar, and a similar roll can be used in the end of the side slide-bars, as is obvious.

One of the many advantages of the present invention is, that one or both hammers can be put to half or safety cock, and then when desired the hammer can be placed at full-cock without opening the gun.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The lump E to barrel A, provided with a cam groove or grooves, *a*, in combination with a slide bar or bars, J, and hammer K, all arranged together substantially as described, for the purpose specified.

2. In a breech-loading fire-arm, the combination, with the hammer, the swinging lever H, having the hub L, fulcrumed on the stock and provided with the side arm, *f*, and the pivoted lever M, of the stirrup-slide N, fitted to slide on the stock and provided with the forwardly-projecting arms extended by the hammers, and having at their front ends the lateral projections *h*, bearing against the front edges of the hammers, said stirrup-slide being provided with the cross-piece *g* and acted on by a spring, *l*, all arranged for operation substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH TONKS.

Witnesses:
EDWIN W. BROWN,
WILLIAM S. BELLOWS.