

C. E. SNEIDER.
Breech-Loading Fire-Arms.

No. 149,352.

Patented April 7, 1874.

Fig. 1.

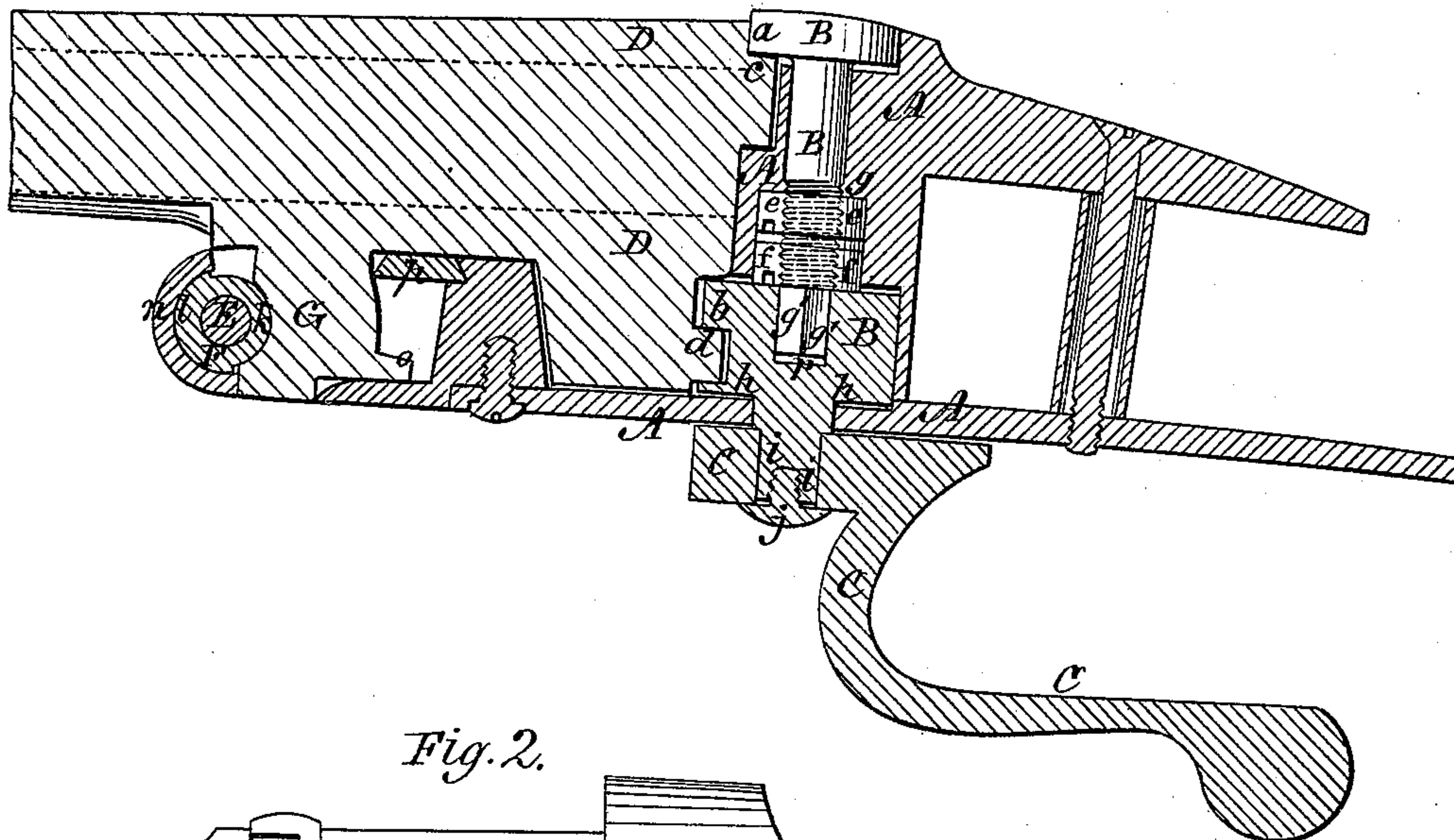


Fig. 2.

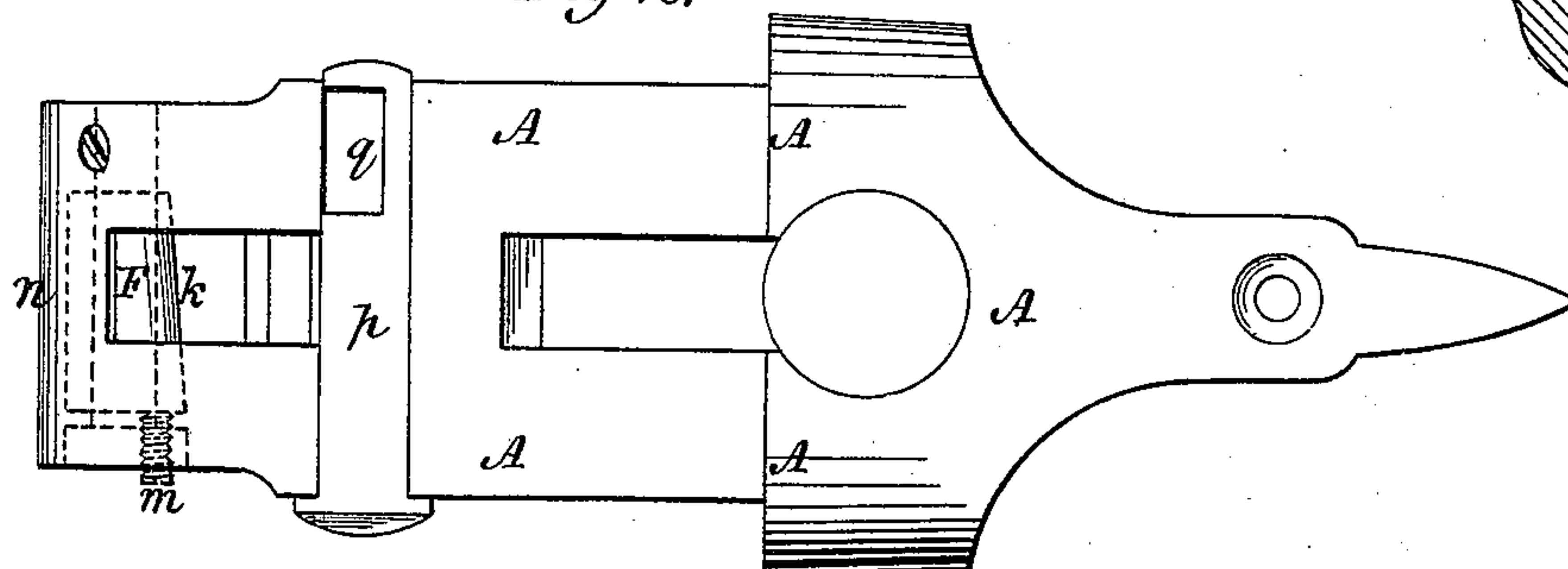


Fig. 3.

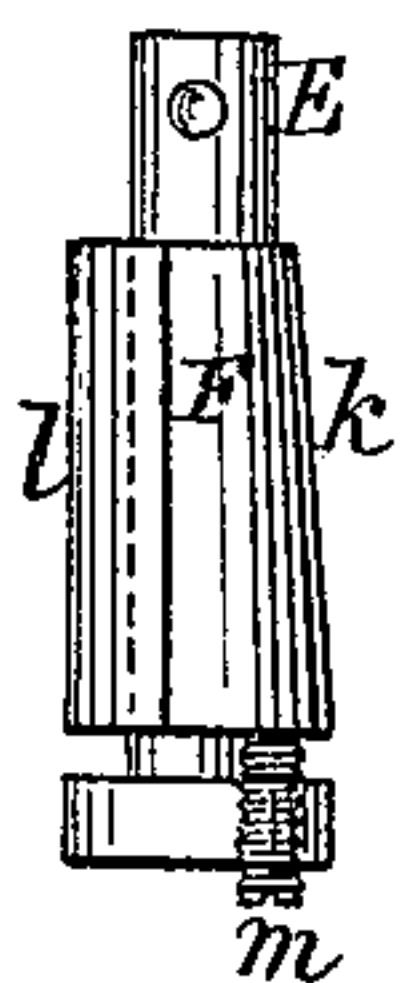


Fig. 4.

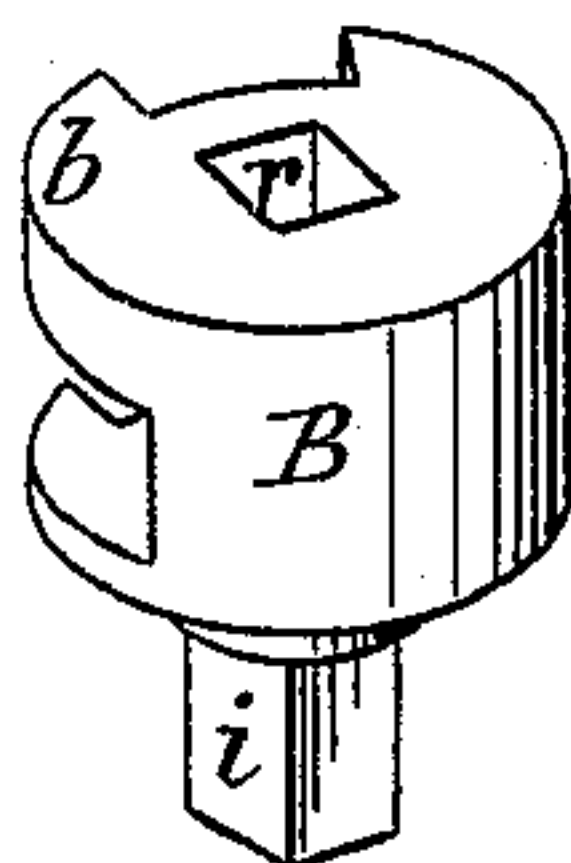


Fig. 5.



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CHARLES E. SNEIDER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **149,352**, dated April 7, 1874; application filed March 9, 1874.

To all whom it may concern:

Be it known that I, CHARLES E. SNEIDER, of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents a longitudinal and vertical section through so much of the rear portion of a breech-loading fire-arm as will illustrate my invention. Fig. 2 represents a top plan of the rear portion of the gun-frame, the barrels being removed therefrom. Figs. 3, 4, and 5 represent detailed parts of the arm.

In breech-loading fire-arms, and particularly in sporting-guns, the barrels are thrown up to receive the cartridges, and down again to be fastened in place, with so much force in the hurry of loading and firing as to wear or strain the joints or moving parts, and thus very much impair the value and use of such arms.

The object and purpose of my invention are to so construct and arrange these moving or wearing parts of a fire-arm as to prevent, as far as possible, sudden strain and jar of such parts, and their consequent disarrangement, and to provide suitable mechanisms to take up such wear or lost motion and compensate for them where they cannot be prevented or avoided; and my invention consists, first, in making the two locking-shoulders on the locking-bolt so that they shall always turn together, but be adjustable independent one of the other, and one be moved up and the other down, or both be moved up or down, as the wearing of the parts may require. It further consists in an adjustable sleeve, conical on a portion of its surface and cylindrical on a portion thereof, in combination with the pivot-pin of the hinge upon which the barrels swing, and with the frame and lug on the under side of the barrels, for bringing the rear of the chambers, or of the barrels, close up against the recoil-block or frame of the arm. It further consists in the construction and operation of the slide or key for fastening the barrels to the frame, (but allowing for the free swinging up of said barrels to receive the cartridge,) in com-

bination with a shoulder or projection on the lug attached to the barrels, so that the jar incident to suddenly throwing up the barrels shall not come entirely upon the hinge-pin, as heretofore, but be taken mainly upon the slide or key.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

In the breech-block or frame A of the arm is placed the locking-bolt B for locking the barrels down firmly to the frame, said bolt B being turned by a hand-lever, C, arranged underneath the frame. Upon this locking-bolt B are two locking-shoulders, *a b*, at some distance from each other, and which, when in proper position, take over projections *c d* on or attached to the barrels D, so as to lock and hold at two points remote from each other, or above and below the barrels. The locking-bolt is made as follows: Near the lower portion of the upper section of said bolt is cut a screw-thread, upon which two nuts, *e* and *f*, are placed, the upper nut *e* bearing against a shoulder, *g*, in the breech-block or frame A, and the under nut *f* bearing upon the upper surface of the under section of said locking-bolt. The lower end of the shank of the upper section, as at *g'*, is made four-sided, and fits into a similarly-sided socket or recess, *r*, in the under section. The lower end of the under section of the bolt is shouldered, as at *h*, and passes clear through the frame, and has a squared piece, as at *i*, upon it, over which the hub of the lever C is passed, and, by means of a screw, *j*, firmly held; and if, at any time, the two shoulders *a b* are not doing equal duty in holding down the barrel, then one or the other, or both, may be regulated by means of the two nuts *e f*, so as to bring them in holding contact with their respective shoulders. This adjustment is important, too, in the event, which sometimes happens, of one or the other of the shoulders, or of their catches, giving way. By taking off the lever C and the strap or lower part of the frame A, easy access is had to the nuts, as the under section of the bolt, in that case, will drop out. The hinge-joint, where the barrels swing upon the frame of the arm, is constructed as follows: Over the hinge-pin E is slipped a sleeve, F, the front portion *k* of

which is made tapering or conical, and the rear portion *l* is made cylindrical, and a set-screw, *m*, passes through the head of the hinge-pin, and its point bears against the end of the sleeve *F*. The front or conical portion of the sleeve *k* bears against a similarly-shaped recess in the lug *G*, which is attached to the under side of the barrels, and the cylindrical portion *l* bears against a cylindrical surface on or in the front portion *n* of the frame. If, at any time, by wear or overstraining of the parts, the barrels fail to come tight up against the breech-block or recoil-piece, it is only necessary, by means of the set-screw *m*, to drive the sleeve a little farther along on the hinge-pin, and this, through the lug *G*, backs the ends of the barrels tight up against the recoil-piece. When the barrels are suddenly thrown up to open the bore for the receipt of the cartridge, and as suddenly stopped, as they must be when they reach the limit of their swinging motion, it strains the pivot of the hinge or hinge-pin, as I have termed it, and this operates to prevent the barrels from fitting snugly and the locking-bolt from working truly. To obviate this as much as possible, and remove the jar or strain upon the hinge-pin, I make a shoulder or projection, *o*, on the lug *G*, which shoulder or projection, just before the barrels come to a stop, comes against the slide or key *p*, so that if it does not take the whole of the strain or jar incident to stopping the barrels suddenly after throwing them open with force, will at least divide it with the hinge-pin, and

so, very much relieve the latter. The slide or key *p* slips into its seat by dovetailed surfaces, as seen in Fig. 1; and to disconnect the barrels from the frame when necessary, a recess, *q*, is made in the slide or key, and which, when brought in line with the lug *G*, will allow the latter to pass through, and so disconnect.

What I claim is—

1. The locking-bolt *B*, made in two parts or sections, but moving together by turning either, in combination with the two nuts *e f* for rendering them separately adjustable, as and for the purposes described.

2. In combination with the hinge-pin *E*, lug *G*, and frame *A*, the sleeve *F*, partly cylindrical and partly conical, and bearing against similarly-formed surfaces, and moving a screw, *m*, for the purpose of bringing the rear of the barrels close up to the breech or recoil-block, as described and represented.

3. In combination with the lug *G* and with the slide or key *p* with its recess *q*, the projection on said lug for coming against the key, and transmitting a portion or all of the jar incident to stopping the barrels to said slide or key, and so relieving the hinge-pin of it and adapting the arm to ready coupling and uncoupling, substantially as described.

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