(No Model.)

W. H. DAVENPORT.

FIRE ARM.

No. 320,637. Patented June 23, 1885.

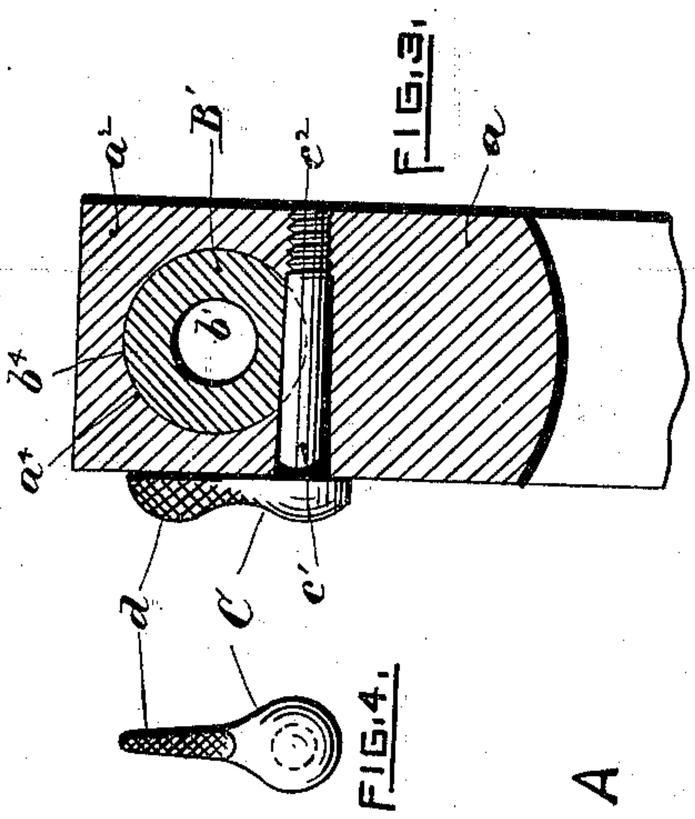

FIG. 3.

FIG. 4.

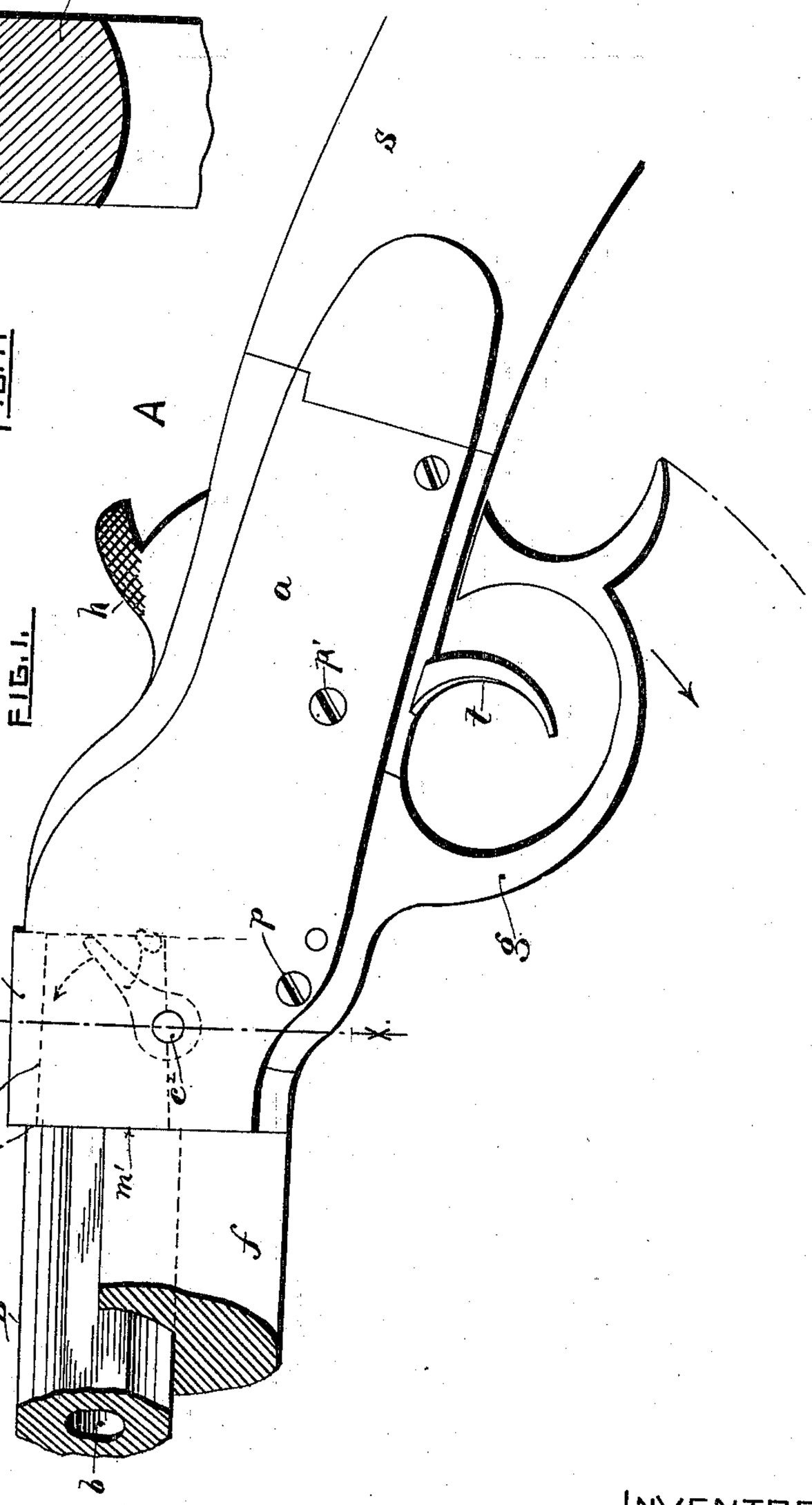

FIG. 1.

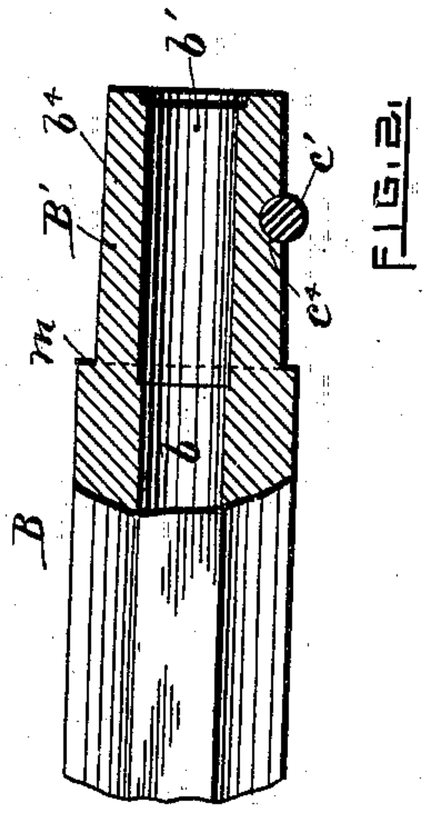

FIG. 2.

WITNESSES.

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FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 320,637, dated June 23, 1885.

Application filed February 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DAVENPORT, a citizen of the United States, residing at Uxbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Rifles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My present invention relates more particularly to rifles or fire-arms in which the barrel is removably mounted; and it consists, essentially, in the novel construction of the barrel-retaining device, whereby the barrel and the breech-frame are adapted to be readily secured together, as well as disconnected, by means of a removable screw-threaded pin having a short arm secured thereto exteriorly of the breech-frame.

The object of the invention is to so form the socket of the breech-frame and the rear end of the barrel that these said parts, when connected and secured by said pin, will be more firmly and accurately retained in position for use, the rifle also, by means of these improvements, being more readily adapted to be taken apart for the purpose of inspection and cleaning, as well as in adapting it to be more conveniently carried in traveling. In order to produce these results, the rear or breech end of the barrel is turned down an inch or so in length, the extreme end of the turned portion being the smallest, thus forming a slight taper or plug shape. The upper portion of the breech-frame is drilled and taper-reamed to receive the said taper-turned portion of the barrel. After the barrel and frame have been thus fitted together, a hole is then drilled transversely through said parts, cutting the lower side of the barrel, said hole being partially screw-threaded. Within this hole is fitted in turn the screw-threaded pin, the latter being screwed up firmly to its seat by means of its integrally-formed lever, thus serving as a key to retain the parts in proper working relations.

Heretofore, so far as I am aware, in this class of rifles or fire-arms the rear end of the barrel has been made cylindrical, while the retaining key or pin has been provided with a head having polygonal sides or with a "screw-driver head." It is evident that this form of construction involves the use of a wrench or screw-driver, (as the case may be,) which must be carried on the person, such implements also being more or less subject to loss, &c. These disadvantages are overcome by means of the improvements illustrated and claimed herewith, in which—

Figure 1 represents a partial side view in elevation of a rifle embodying my improvements. Fig. 2 is a detached view of the rear end of the barrel in partial section. Fig. 3 is a transverse sectional view through line $x x$ of Fig. 1, showing the parts in position as in use; and Fig. 4 represents the front end view of the retaining-pin, showing the short arm or lever formed thereon for operating the same.

The following is a more detailed description of the invention, including the manner of its operation:

A, referring now again to the drawings, designates the rear portion of a rifle, consisting of the barrel B, breech-frame a, stock s, and fore-wood f, said frame a being provided with a sliding breech-block adapted to be operated by the swinging guide g, as common.

h and t represent, respectively, the hammer and sear, also as usually constructed and connected.

The end portion, B′, of said barrel B is made slightly conical (see b^4) and terminating in the shoulder m, as shown in Fig. 2.

b' indicates the counter-bored portion of the barrel for receiving the cartridge-shell.

The upper portion, a^2, of the forward end of the breech-frame a is provided with the slightly-conical shaped seat a^4, the same being the counterpart of the barrel portion b^4 just described.

C designates the steel retaining or locking pin, consisting of the stem portion c', slightly tapering, ending in the screw-threaded part c^2, the right or opposite end of the pin having the lever or arm d secured or formed thereon for the purpose of affording means for readily and rapidly screwing the pin into or out of

the frame *a*, as desired, the frame being drilled and tapped for the reception of said pin at a point about midway of the frame portion a^2, and below the center of the barrel, in fact practically cutting a semicircular groove across the lower side of the plug portion B′, as fully shown in Figs. 2 and 3.

The operation of removing the barrel from the frame for the purpose of packing the rifle into a smaller compass, &c., may be substantially described as follows: The lever *d* of the pin C, projecting from the right side of the frame *a*, is first grasped by the fingers of the operator and turned in the arrow direction, (see Fig. 1,) which causes the said pin to become unscrewed from the frame, and permitting the barrel, with its attached fore-wood *f*, to be removed from the socket a^4, the taper or plug-shape form of the parts readily effecting such removal.

As the breech-block and its operating mechanism are both common to this class of firearms, I do not deem a description of them essential to this specification.

It is obvious that the lever or handle portion *d* of the pin may be formed separately and secured to the pin, in lieu of its being made integrally therewith, without departing from the spirit of the invention.

I am of course aware that the rear end of the barrel has been straight-turned or cylindrical, and fitted into a corresponding socket of the frame *a*, prior to this present invention, the same also being, in combination with an ordinary machine screw or bolt, adapted to serve as a key for retaining the barrel in position. Therefore I do not claim such construction broadly; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a rifle, the breech-frame provided with a socket, and having a breech-block and hammer, and suitable operating mechanism therefor, in combination with the barrel fitted to said socket, and the locking-pin passing transversely through both the frame and barrel, whereby said barrel is removably mounted and secured in position, as set forth.

2. In a rifle, the combination, with the breech-frame *a*, having the barrel B taper-fitted therein, and suitable locking and firing means, of the locking-pin C, consisting of the partially-screw-threaded stem having the short arm or lever *d* secured thereto, all constructed, arranged, and adapted for operation substantially as shown, and for the purpose set forth.

3. The improvement in rifles which consists in the combination, with the recessed breech-frame and the barrel fitted thereto, of a locking-pin passing transversely through the recessed portion of said breech-frame and the under side of the barrel, said pin being screw-threaded and having a lever-shaped head, substantially as shown, and for the purpose hereinbefore set forth.

4. In a rifle provided with suitable breech-locking and firing mechanism, the removably-mounted barrel B, having its rear end, B′, taper-turned and fitted within the frame *a*, in combination with the lever-headed locking pin or key C, having a slightly-tapering stem, *c′*, provided with the screw-thread c^2, said pin extending transversely through the frame *a* and the under side of the barrel, the lever *d* of said pin being exteriorly of the frame, all constructed, arranged, and adapted for operation substantially as shown, and for the purpose described.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM H. DAVENPORT.

Witnesses:
ARNOLD S. ALLEN,
J. WALTER DAY.