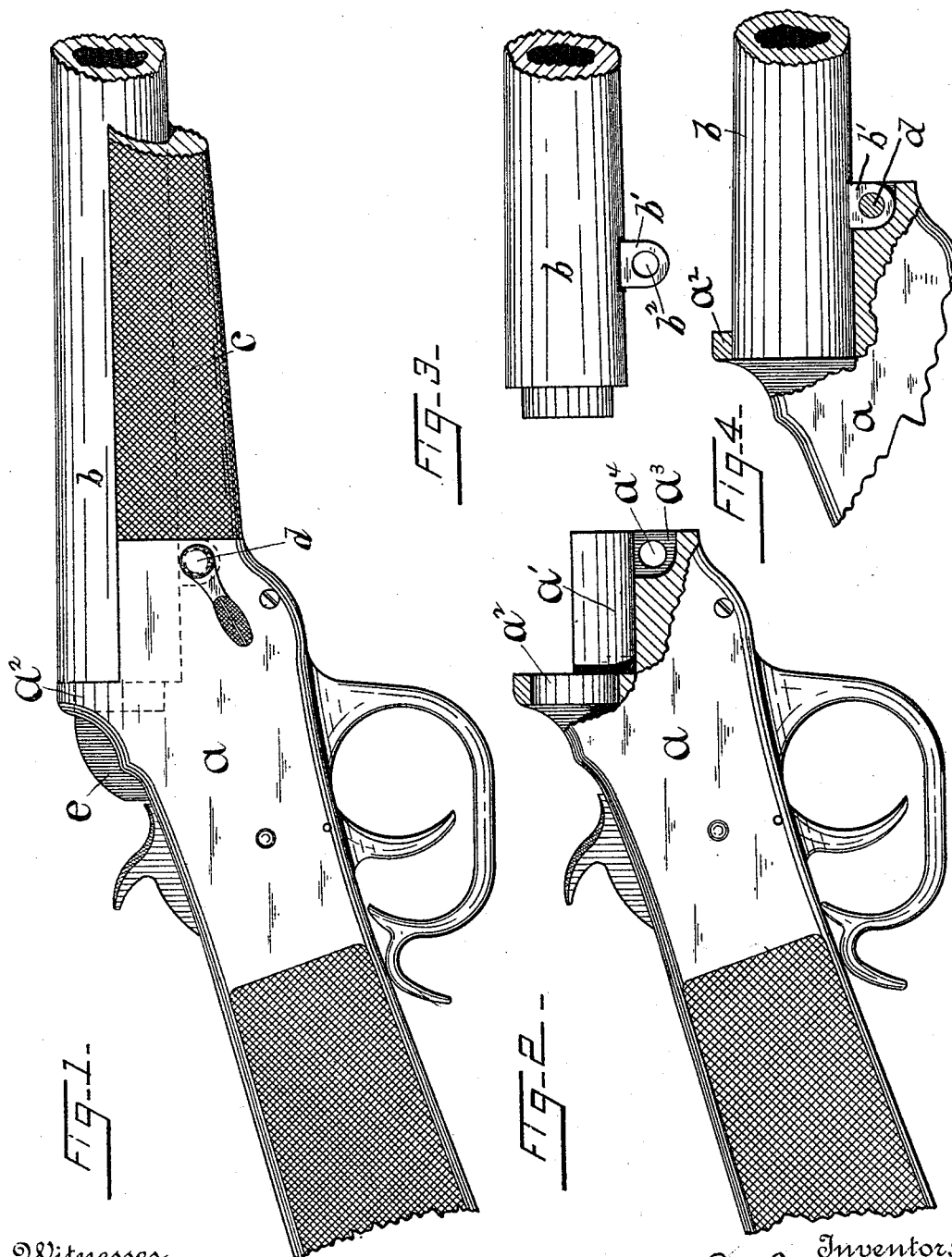


(No Model.)

H. A. BRIGGS & C. W. HOPKINS.
FIREARM.

No. 489,366.

Patented Jan. 3, 1893.



Witnesses

Alvino M. Luther
Allen Tenny.

Inventors:
Horace A. Briggs,
Charles W. Hopkins.
By *their Attorney*
Frank H. Allen.

UNITED STATES PATENT OFFICE.

HORACE A. BRIGGS AND CHARLES W. HOPKINS, OF NORWICH, CONNECTICUT.

FIREARM.

SPECIFICATION forming part of Letters Patent No. 489,366, dated January 3, 1893.

Application filed May 27, 1892. Serial No. 434,681. (No model.)

To all whom it may concern:

Be it known that we, HORACE A. BRIGGS and CHARLES W. HOPKINS, both citizens of the United States, residing at Norwich, in the county of New London and State of Connecticut, have made a certain new and useful Improvement in Firearms, which improvement is fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings.

Our invention has particular relation to the class of guns and rifles in which the barrel is removably secured to the breech-frame, and our object is to provide a simple, strong and easily operated means for so securing the barrel.

In the drawings hereto annexed Figure 1 is a side view of those portions of a single barrel gun embodying our invention, and Fig. 2 is a similar view of the frame, partly cut away to expose the seat provided for the barrel. Fig. 3 shows the rear end of the barrel. Fig. 4 illustrates the barrel-seat as arranged to receive the barrel-end without shouldering down said end.

The letter *a* in these drawings indicates the breech-frame of a single barrel gun, *b* the barrel and *c* the fore-wood.

We have not shown the lock work of the arm in detail as it has no special relation to our present invention.

In arms of this class the barrel has heretofore been secured to the breech-frame in some instances by turning down the rear end of the barrel for a considerable distance and forcing it into a corresponding seat bored in the frame, the barrel being secured in place by some convenient form of set screw. In other instances the upper portion of the frame has been cut away entirely, the barrel being simply laid into the semi-circular seat thus provided. In the latter form of barrel connection a long rib has been provided on the under side of the barrel, formed with a hook to pass beneath a lug or bridge in the frame and with an opening forward of said hook to receive a pin driven through the frame and rib. The first of these described barrel fastenings requires that the barrel be turned down for a distance of an inch and a half or thereabout and that the frame be nicely bored and reamed to receive said barrel, and

the making of this joint occasions expense which it is desirable to avoid. In the second instance, that is to say where the barrel is simply laid into a semi-circular seat and secured by a hook and key, there is a tendency on the part of the barrel to work loose with continued use and become more or less "shackly." Our invention is intended to retain the most valuable features of these former methods and to provide a fastening which may be more cheaply constructed than either of them and which cannot become loosened by the firing of the arm.

The frame *a* in our improved arm is formed at its upper front portion with a semi-circular chamber *a'* of considerable length, extending rearward to within a quarter of an inch, or thereabout, of the chamber in which the vertically movable breech-block *e* is located, and the portion of the frame intervening between chamber *a'* and the breech-block chamber is extended upward and bored to form a ring *a²* which completely encircles the rear end of the barrel when the latter is in place in the frame. The rear end of the barrel may be turned down as shown in Fig. 3, in which case the top of the barrel and of the ring *a²* would be flush with each other as in Fig. 1, or if preferred the barrel may be left of the same diameter to its extreme rear end, the ring *a²* being correspondingly bored to receive it, as in Fig. 4. Secured to the lower side of the barrel is a lug *b'* which, when the barrel and frame are assembled, enters a slot *a³* in said frame. The barrel lug is bored in a direction transversely to the length of the barrel, as at *b²*, and when the parts are assembled, this opening is coincident with holes *a⁴* of corresponding size in the frame and through these holes a key or pin *d* is driven or screwed. We thus provide two locking points for the barrel, one of which (the frame ring *a²*) encircles the extreme rear end of said barrel and prevents positively any lateral deflection, while the pin *d* prevents any lengthwise movement of said barrel in its seat.

In arms of this class, particularly in shot guns of large bore, the sudden shock and strain upon the barrel at the time of firing has been sufficient in some instances to wrench the fastening rib or lug from the bottom of

such barrels, but such a result could not well occur in an arm embodying our present invention as the frame ring a^2 , encircling the barrel, would act as a safe guard to prevent
5 any lateral displacement of the barrel even if the lug b' was not securely fastened to said barrel.

Having described our invention, we claim:—

10 In a fire-arm, in combination with a barrel having a perforated lug as set forth, a breech-frame formed with a barrel seat consisting of

a semi-circular chamber, with a ring a^2 at its rear portion adapted to encircle the extreme rear end of the barrel, and a locking key extending transversely through the frame and 15 through the said barrel lug, substantially as and for the purpose specified.

HORACE A. BRIGGS.

CHARLES W. HOPKINS.

Witnesses:

FRANK H. ALLEN,

ALONZO M. LUTHER.