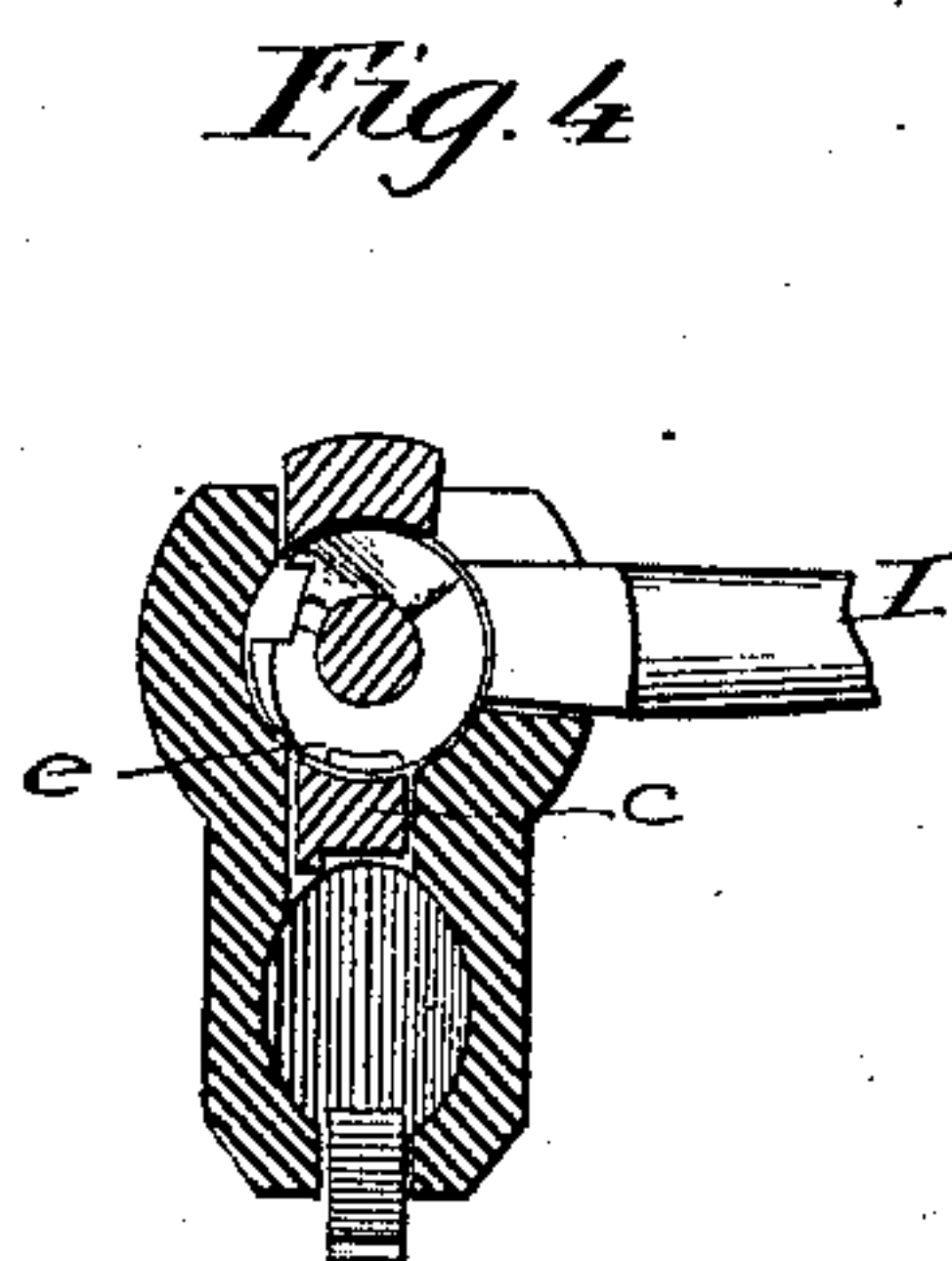
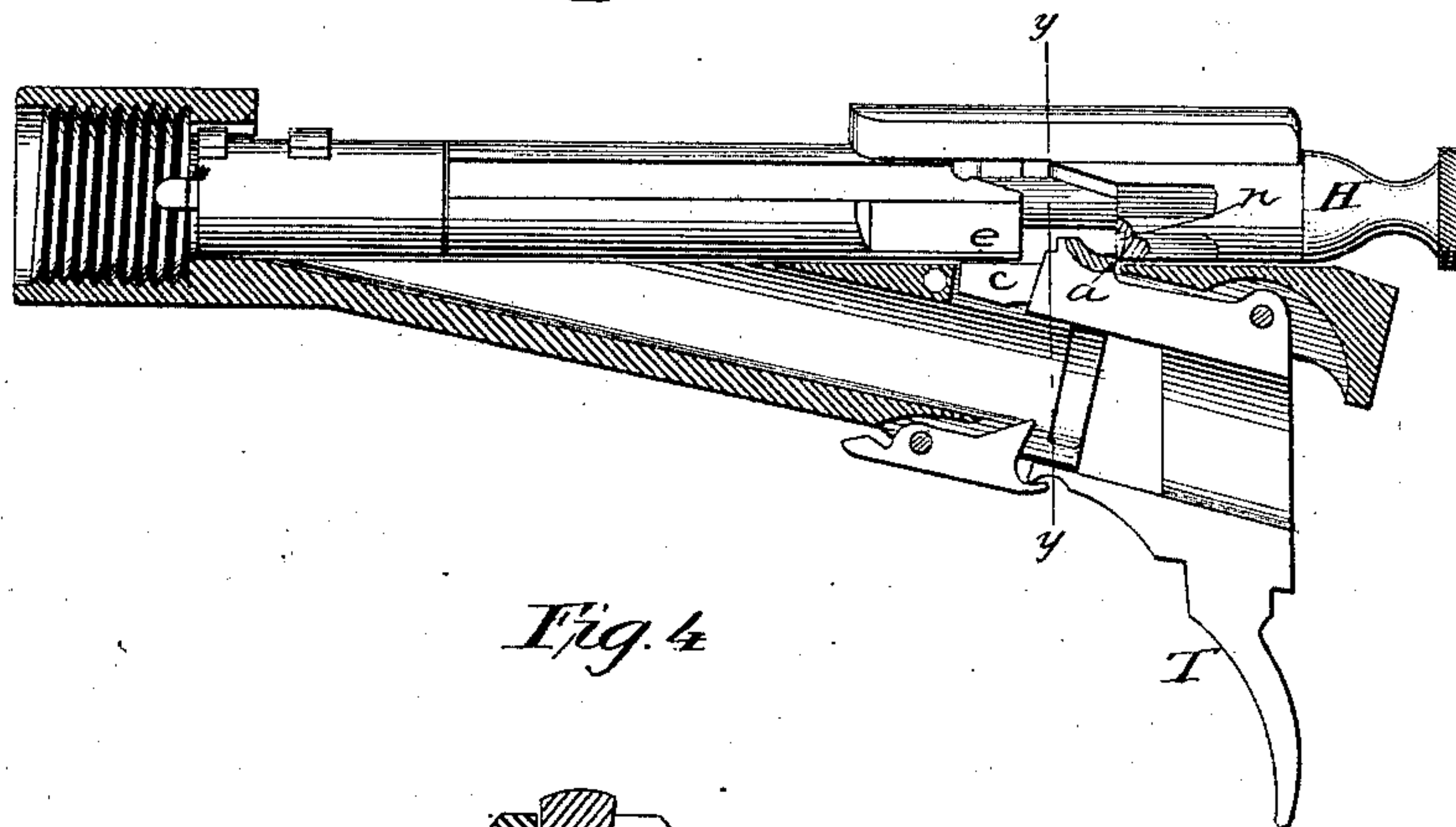
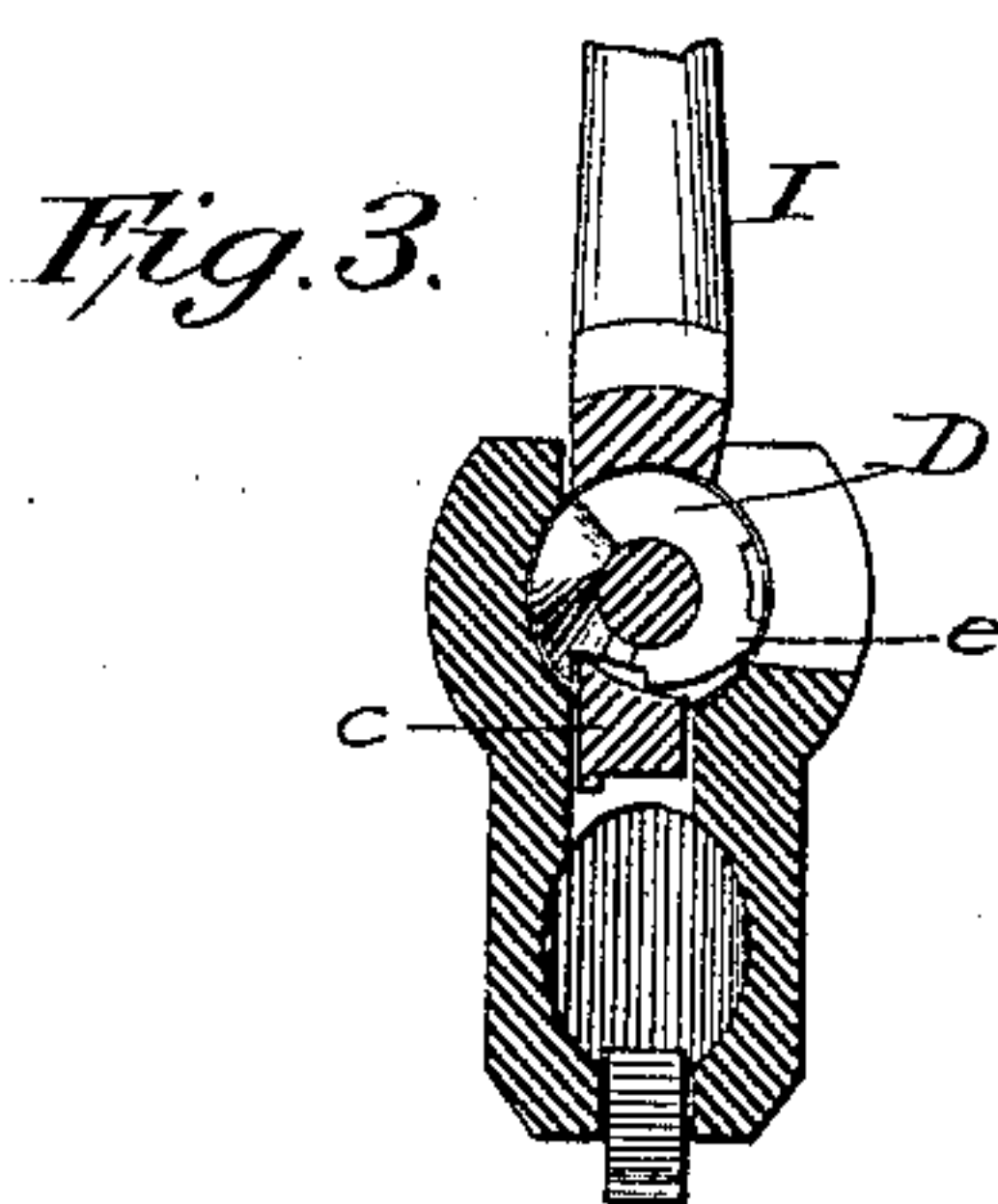
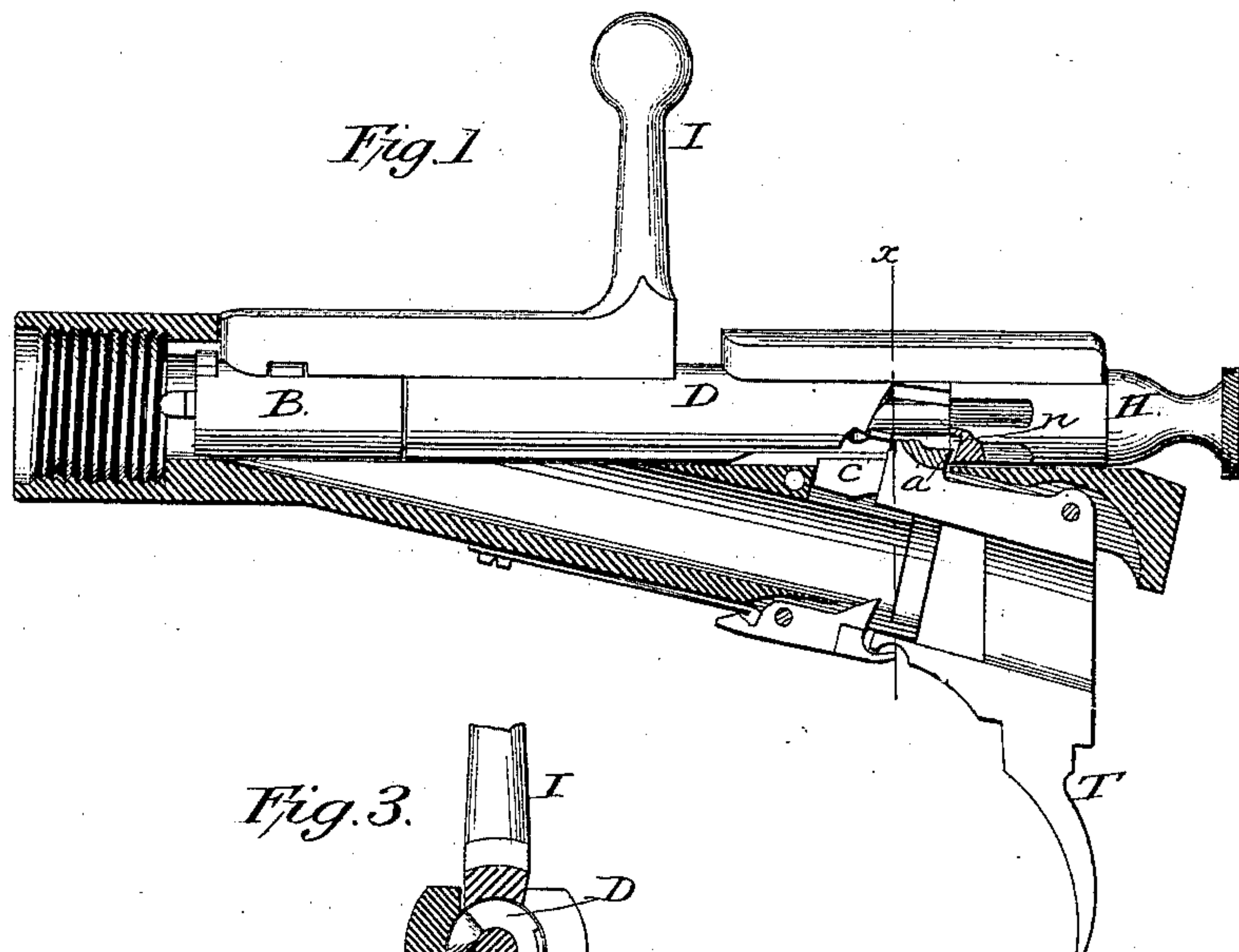


T. G. BENNETT.
Lock for Fire-Arms.

No. 223,797.

Patented Jan. 27, 1880.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS G. BENNETT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

LOCK FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 223,797, dated January 27, 1880.

Application filed December 23, 1879.

To all whom it may concern:

Be it known that I, THOMAS G. BENNETT, of New Haven, in the county of New Haven and State of Connecticut, have invented certain Improvements in Locks for Bolt-Guns, of which the following is a specification.

This invention relates to that class of fire-arms known as "bolt-guns;" and the invention consists in providing the breech-bolt, or that part of it which is turned to lock the breech closed, with an eccentric or cam so arranged as to depress the sear or locking-point of the trigger and partially release its hold on the hammer or firing-bolt, for the purpose of enabling the gun to be fired with a lighter pull on the trigger, as hereinafter more fully described.

Figure 1 is a side elevation, with the shoe or frame shown in section, with the parts in position with the breech unlocked. Fig. 2 is a similar view with the breech locked and the sear depressed. Figs. 3 and 4 are transverse sections on the lines *x x* and *y y* of Figs. 1 and 2, Fig. 3 representing the breech unlocked, and Fig. 4 showing it locked with the sear depressed, as in Fig. 2.

In constructing bolt-guns the hammer or firing-bolt is usually arranged to extend longitudinally through the breech-bolt, and is provided with a shoulder, against which the sear or trigger engages to hold the hammer cocked; and in order to render the arm safe and prevent its being accidentally discharged, this locking-shoulder is made quite deep, and is sometimes undercut or inclined backward, as shown at *n* in Figs. 1 and 2, to enable the sear or trigger to have a firm hold thereon and prevent it from slipping off the shoulder by a sudden jar or concussion, to which the gun is frequently subjected in drilling and otherwise handling it.

This construction, together with the fact that the sear or trigger is made to take a deep hold on the locking-shoulder, necessitates a heavy or strong pull on the trigger when firing; and this secure locking of the hammer is necessary in order to prevent accidents by letting the hammer go before the breech is securely locked, while at the same time the strong pull required to fire the arm is objectionable.

My invention is designed to render the pull

on the trigger for firing the arm more light or easy, while retaining the element of safety while the breech is being closed and until it is securely locked.

In the drawings, D represents the sleeve of the breech-bolt, to which the handle I is rigidly attached, this handle serving to lock the breech closed, as usual in this class of guns. In this case the front part, B, of the breech-bolt does not turn with the part D; but, so far as my present invention is concerned, they may be made in a single piece, if desired.

In the drawings, H indicates the hammer or firing-bolt, and *n* the locking-shoulder against which the sear *a* engages, the sear *a* in this case being made solid with the trigger T, as used in the Hotchkiss gun, though they may be made separately, if desired.

The sear *a* has an arm, *c*, projecting from its front end, which rests under the rear end of the part D, as shown in Figs. 1 and 2, and the rear end of the sleeve D, which rests over this arm *c* when the breech is closed, is made eccentric, as shown at *e*, Figs. 3 and 4, thus in effect providing a cam which, when the breech is closed but not locked, is at the right of the sear, and, of course, has no effect upon it, thus permitting the sear *a* to take a deep hold on the shoulder *n*, as shown in Fig. 1. As the handle I is turned to the right to lock the breech this cam or eccentric *e* presses upon the arm *c*, and thereby cams down the point of sear *a*, or shoves it part way down on the face of shoulder *n*, as shown in Fig. 2, the hold of the sear on the shoulder of the hammer being left sufficient to retain the hammer in position, but at the same time considerably reducing the pull required to release it and fire the arm.

While I have shown my invention applied to the Hotchkiss, which is a magazine-gun, it is obvious that it may be applied to any style of bolt-gun, and that it is immaterial whether the bolt be made of one or more parts, as also whether this or a different style of sear and trigger be used, it only being requisite that the parts shall be so formed and arranged that as the breech is locked the point of the sear or trigger shall be cammed or pressed down or part way off the locking-shoulder.

Instead of forming the eccentric solid with

or as an integral part of the sleeve or bolt, it may be made separate, and so attached thereto as to be adjustable thereon, so it can be set to project more or less, thus operating more or
5 less on the locking-point of the sear or trigger, and thus enabling the pull required for firing the arm to be set or varied at will. A simple method of doing this would be to use a screw for the eccentric or projection, as it would only
10 require to be turned in or out to adjust it.

Having thus described my invention, what I claim is—

The bolt or sleeve D, provided with a cam or projection, e, so arranged in relation to the sear or trigger as to decrease the hold of the
15 latter upon the locking-shoulder of the hammer or firing-bolt by the act of locking the breech-bolt, substantially as and for the purpose set forth.

THOMAS G. BENNETT.

Witnesses:

DANIEL H. VEADER,
EDWIN Z. DOW.