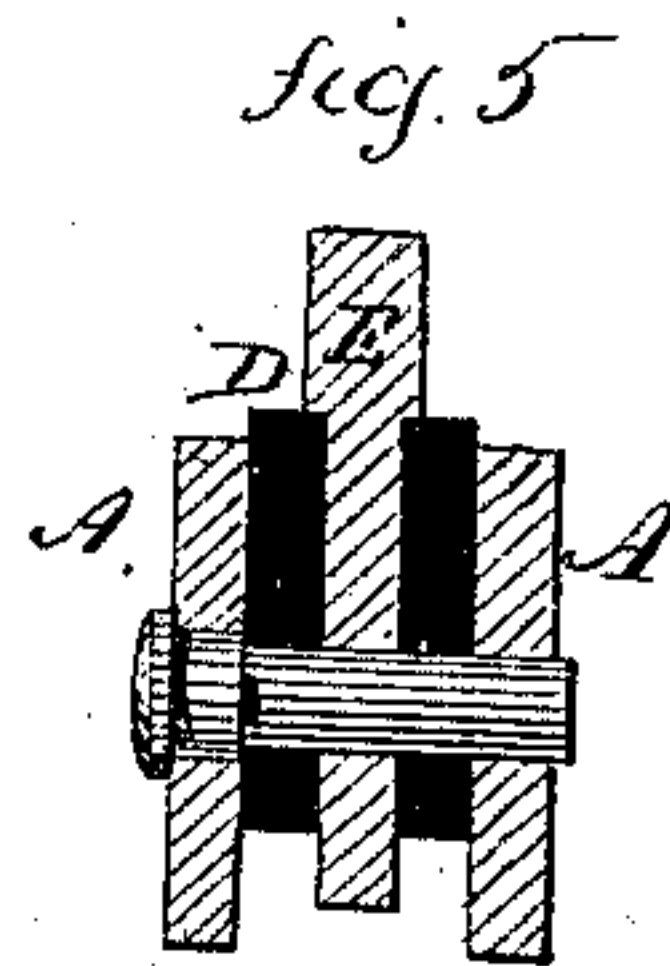
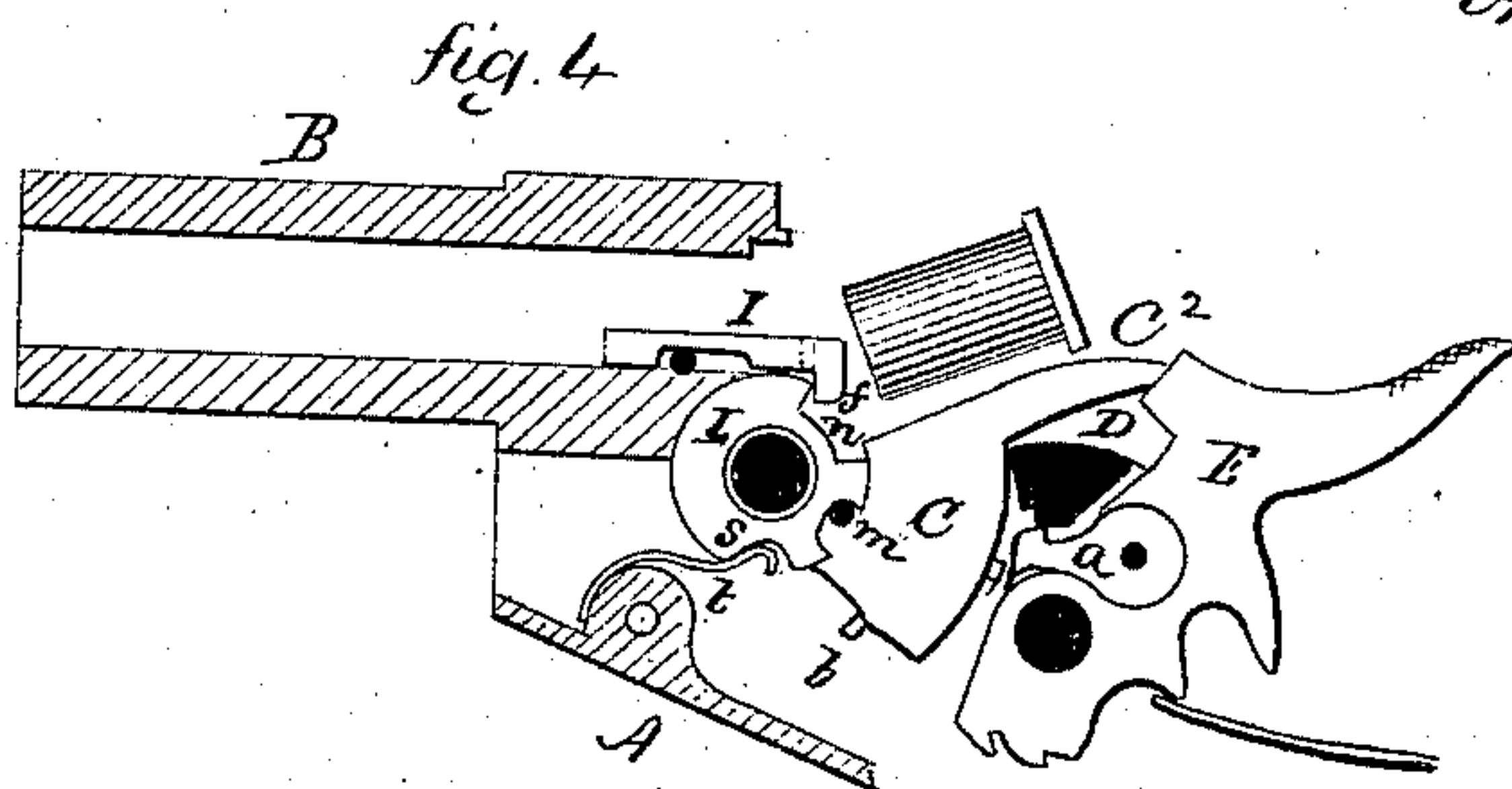
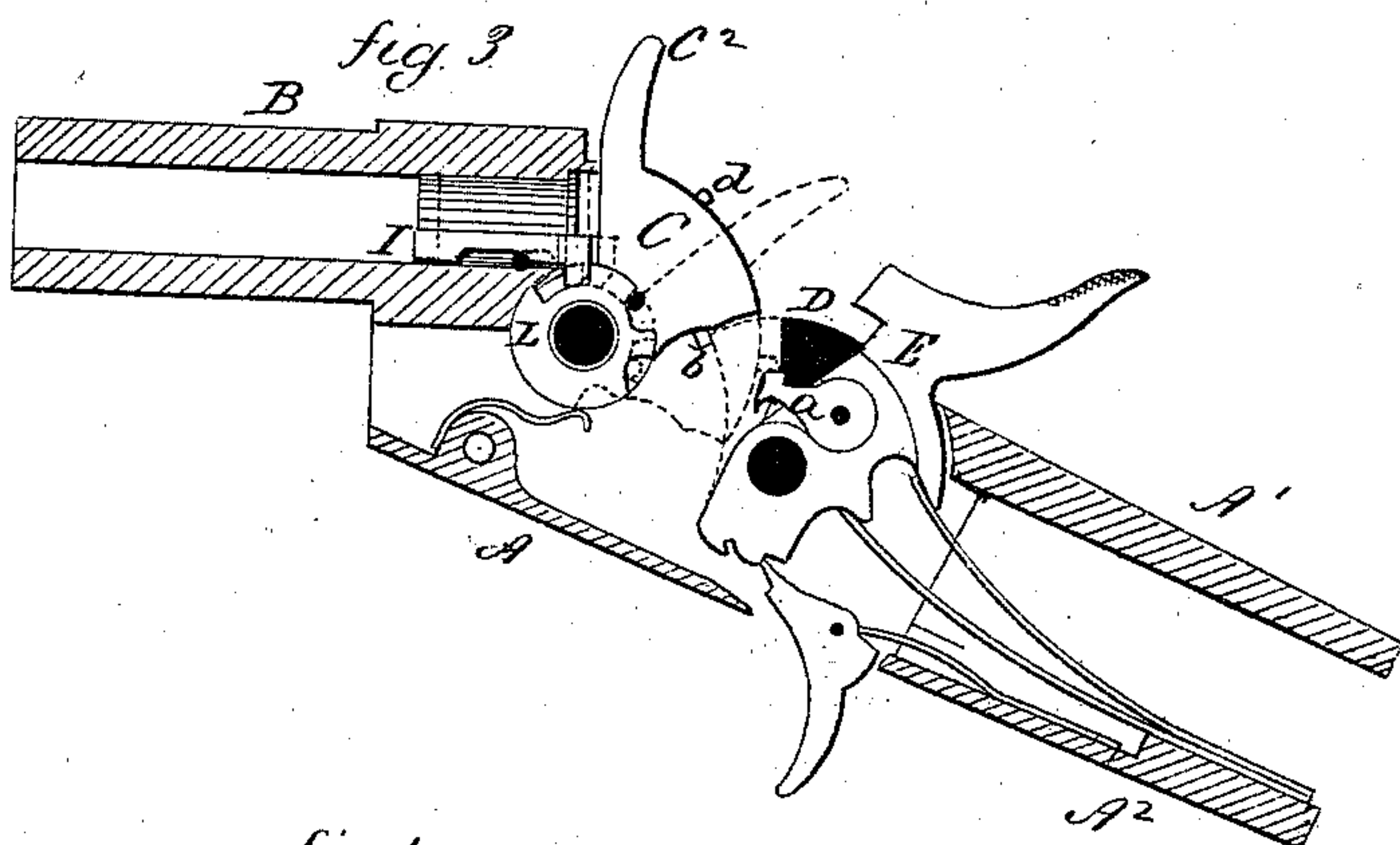
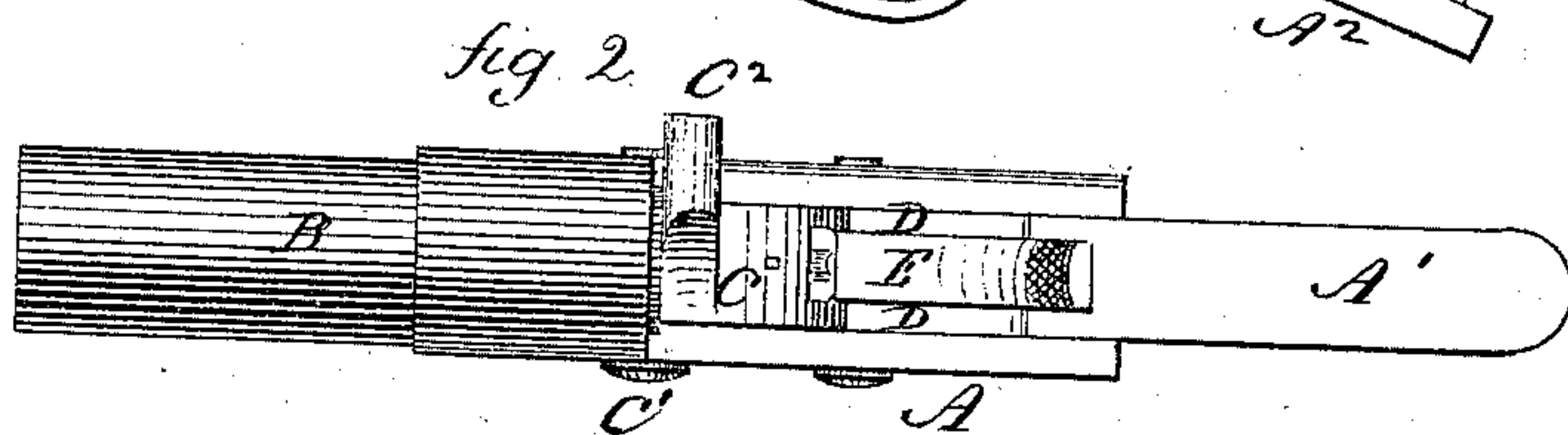
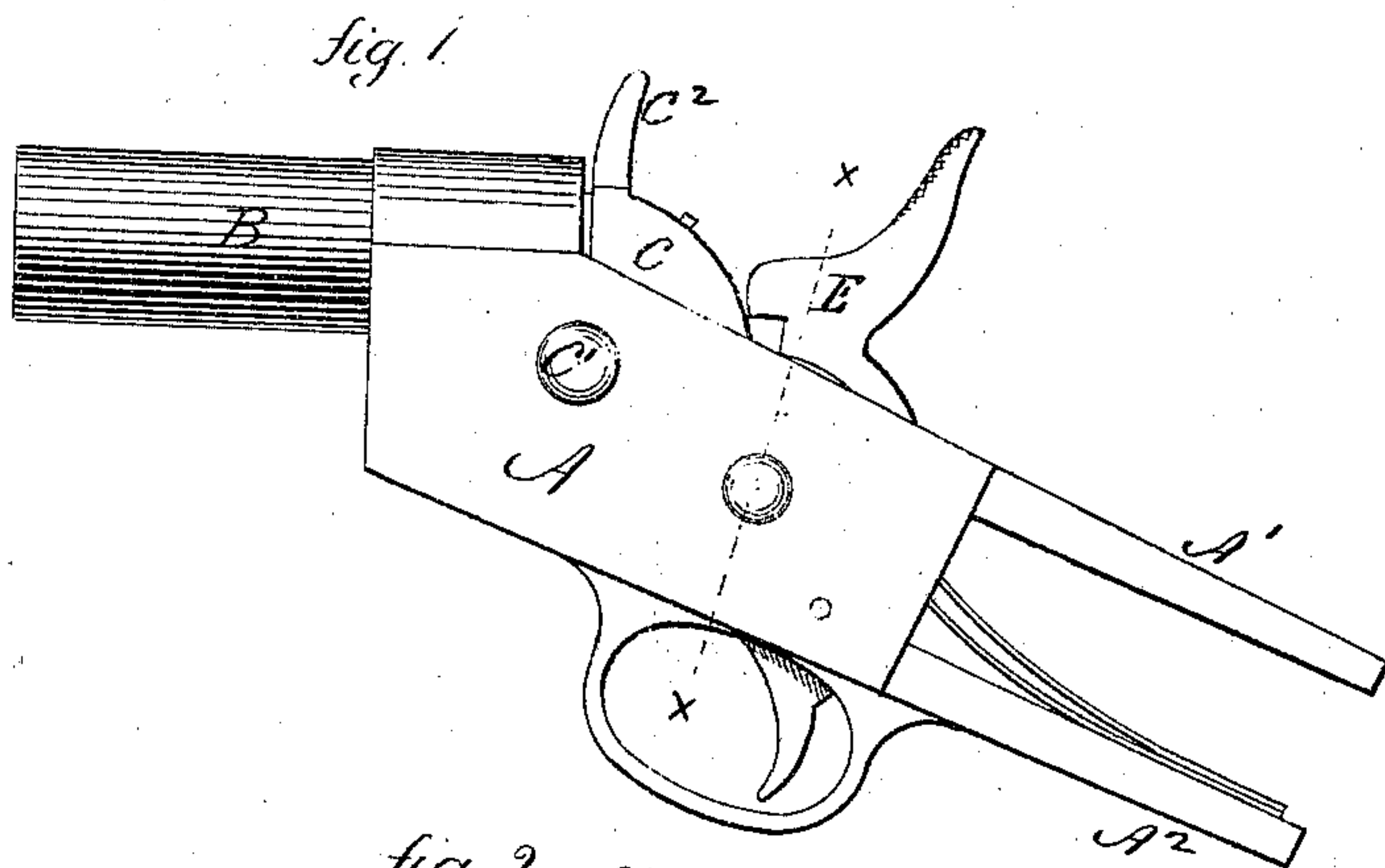


ELI WHITNEY.

Improvement in Breech-Loading Fire-Arms.

No. 124,994.

Patented March 26, 1872.



Witnesses:
J. H. Thurman
A. J. Tibbitts

Eli Whitney
Inventor
By his Atty.
John E. Earle

UNITED STATES PATENT OFFICE.

ELI WHITNEY, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 124,994, dated March 26, 1872.

To all whom it may concern:

Be it known that I, ELI WHITNEY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Breech-Loading Fire-Arms; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side view; Fig. 2, a top view; Fig. 3, a longitudinal central section, the parts in position for firing; Fig. 4, the parts in the position of having thrown out the shell; and in Fig. 5, a transverse section on line *x x*.

This invention relates to an improvement in that class of breech-loading fire-arms in which the breech-piece is turned down to the rear to open the breech for insertion of the charge, and the said breech-piece locked against the rear of the barrel by a cam falling in behind the breech-piece, and especially to the arm patented to me March 21, 1871.

In my arm patented as above the cam was tripped by the end of the breech-piece coming in contact with the latch which held the cam in its descent, the latch dragging upon the surface of the breech-piece after it was tripped, rendering it liable to catch, and to other objections now clearly apparent. In that arm an independent finger-piece was employed to operate the cam, necessitating an additional operation in the manipulation of the arm.

To overcome these difficulties is the object of the present invention; and it consists in constructing the breech-piece with a projection or stud upon its surface in such relative position to the latch which secures the cam that it will trip the latch and the latch remain always clear from the surface of the breech-piece; and by this construction of the cam, hammer, and breech-piece the cocking of the hammer will draw back the cam without the intervention of other manipulation, but the cam will be released by the descent of the breech-piece independent of the hammer.

A is the frame, constructed with tangs A¹

A² for securing the frame to the stock. B is the barrel, secured to the frame in the usual manner, with the breech open. C is the breech-piece, pivoted in the frame at C¹, and provided with a finger-piece, C², for operating, substantially in the manner as in my patent before referred to. D is the cam shown in section in solid black, Figs. 3, 4, and 5; in Figs. 3 and 4 as raised from the locking position, but thrown forward to lock the breech-piece, as in Fig. 3. This cam is divided or forked to set each side of the hammer E, as denoted in Figs. 2 and 5, and in such relative position to the breech-piece C that when thrown forward, as in Fig. 3, the cam will fall beneath the breech-piece and hold it up against and so as to close the rear of the barrel, as denoted in broken lines, Fig. 3. On the hammer, above its pivot, is arranged a latch, *a*, which, when the cam is thrown forward to lock the breech-piece, and the hammer also thrown down as for the discharge of the arm, would engage upon the said cam, and project slightly beyond its surface, so that when the hammer is drawn back it will take the cam with it, as denoted in Fig. 3. The edge or face of the cam nearest the breech-piece is drawn further back than the surface of the breech-piece, so that as the breech-piece is drawn down, as in broken lines, Fig. 3, it will pass clear of the end of the latch without coming in contact therewith. In order to trip the latch to release the cam, a stud or projection, *d*, is arranged upon the surface of the breech-piece in such relative position that it will not reach the latch until the breech-piece has been thrown back nearly to its full extent, and the said projection will trip the latch but not pass below it. Thus the latch is left free or prevented from coming in contact with the firing-pin or whatever else may be arranged upon the surface of the breech-piece; and the cam is manipulated by the hammer and breech-piece without the finger-piece on the cam before referred to. This construction necessitates the arrest of the cam when it has been thrown sufficiently far forward to lock the breech-piece. For this purpose I form a shoulder or projection, *b*, on the rear of the breech-piece, upon which the cam will strike and there remain until engaged by the latch *a*.

I claim as my invention—

1. The combination of the breech-piece C, cam D, and hammer E, when the said hammer is provided with a latch, *a*, arranged so to draw the said cam from beneath the said breech-piece, and to release the said cam by the movement of the breech-piece, substantially as described.

2. The combination of the breech-piece C¹,

latch and cam D, when the said breech-piece is provided with projection *d* to trip the latch which holds the cam at or near the termination of the fall of the breech-piece, substantially as and for the purpose set forth.

ELI WHITNEY.

Witnesses:

ELI WHITNEY, Jr.

A. J. TIBBITS.