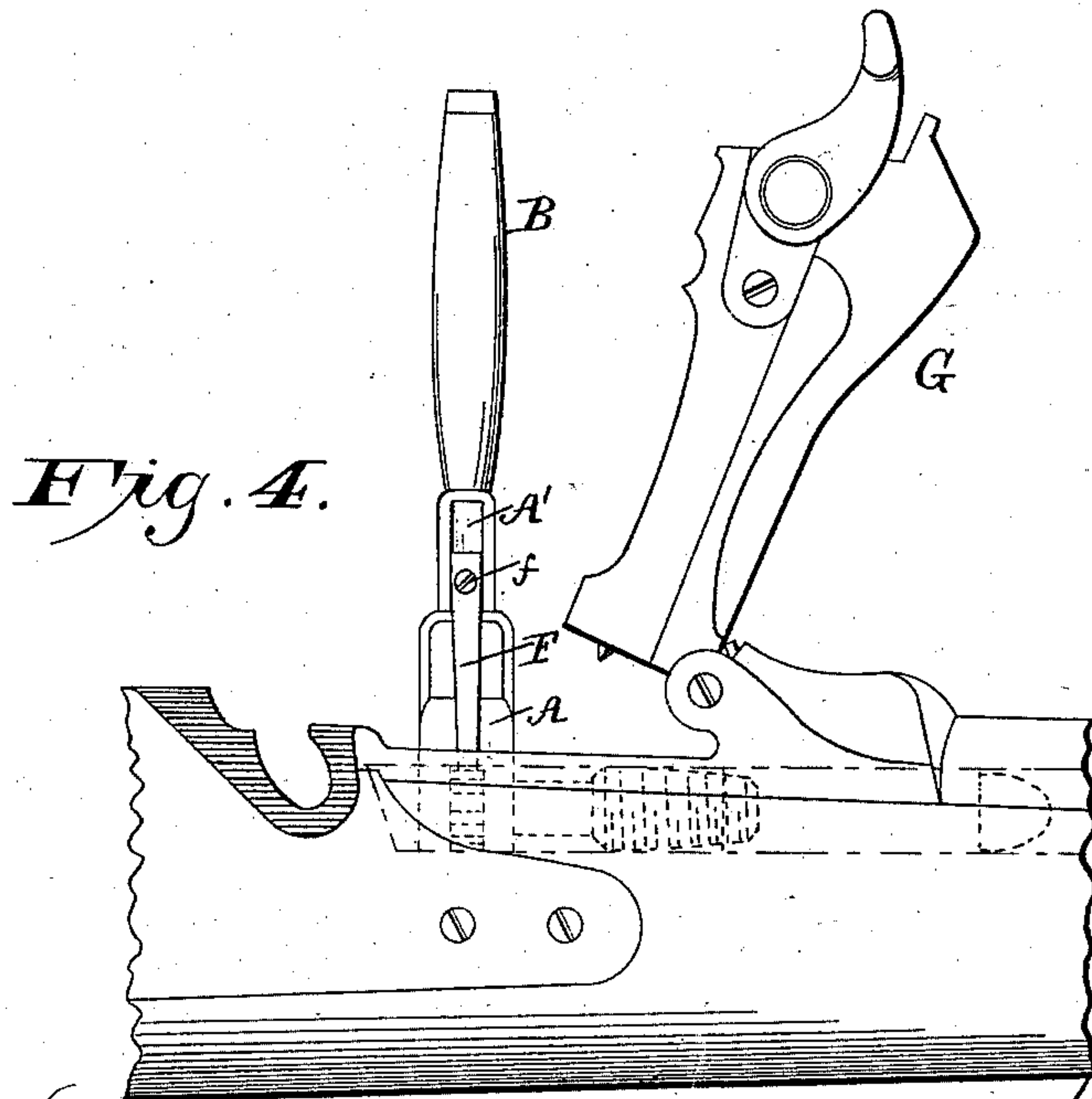
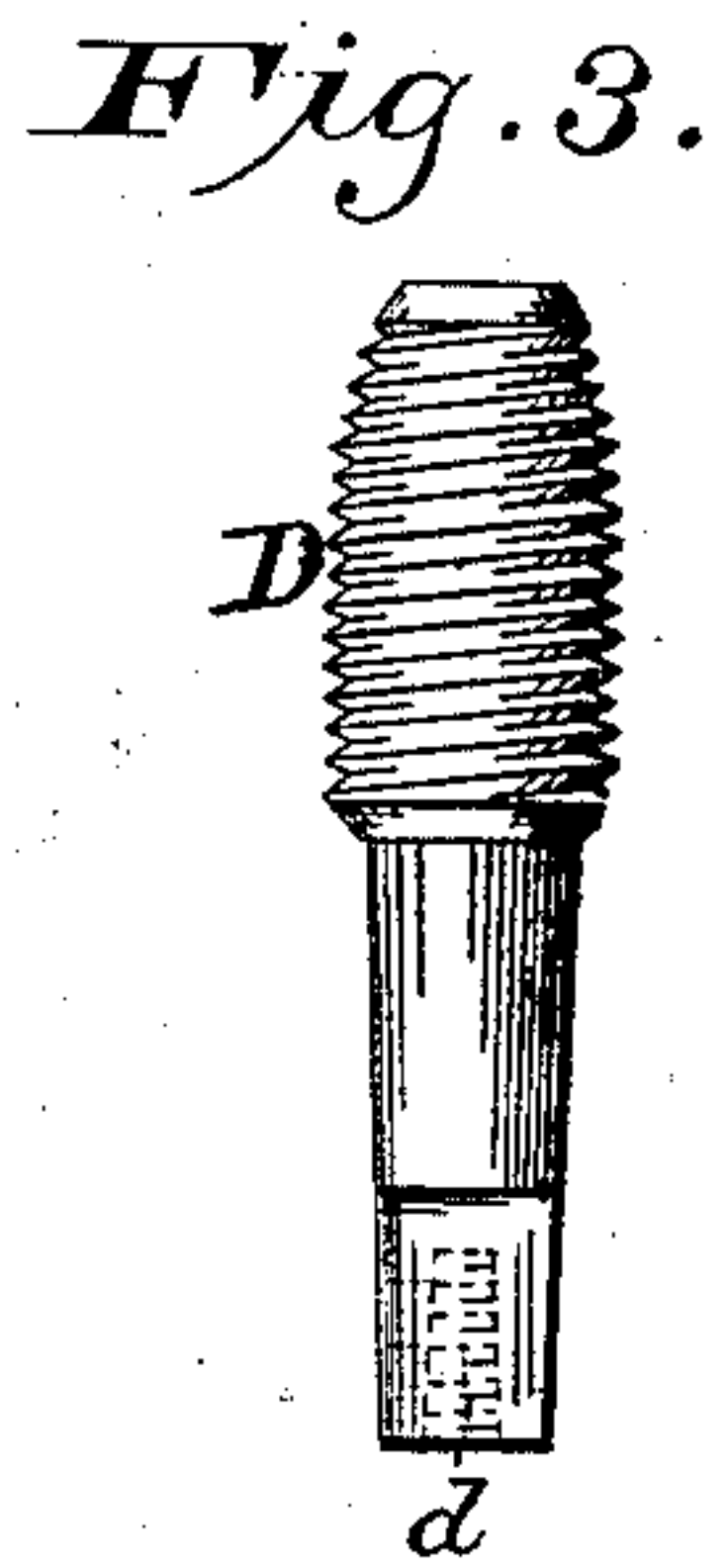
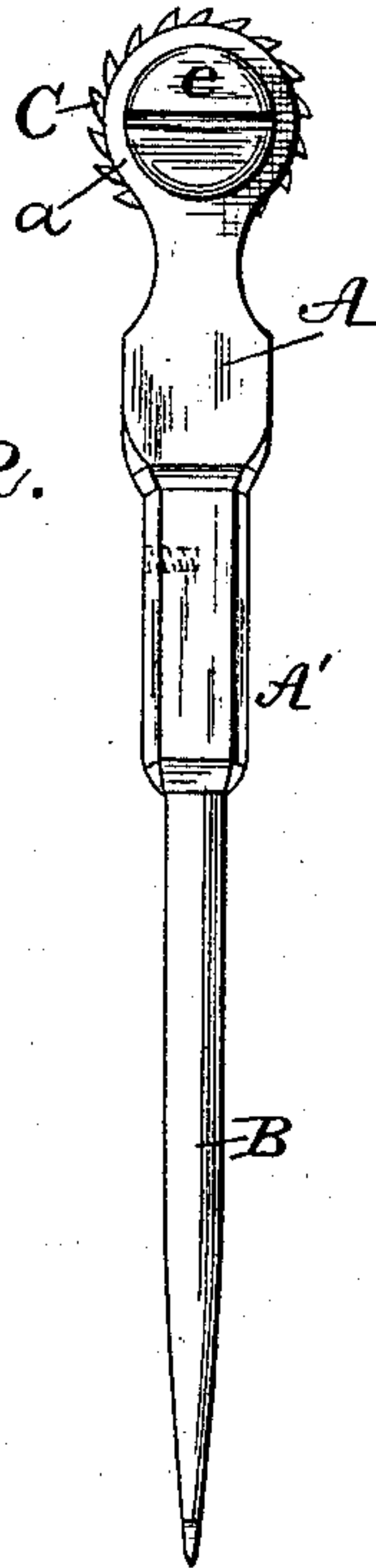
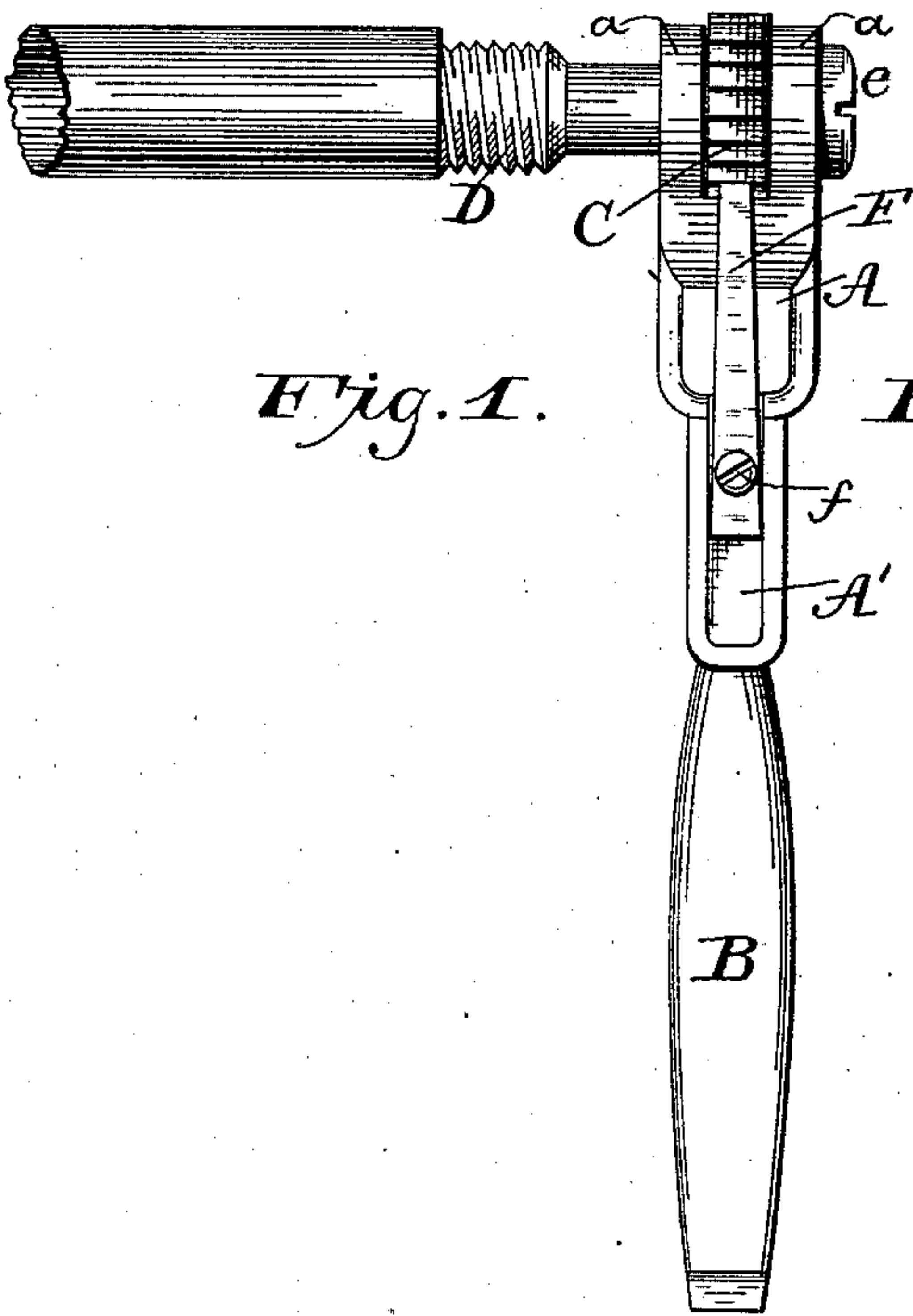


(No Model.)

W. PRATT.
BROKEN SHELL EXTRACTOR.

No. 280,239.

Patented June 26, 1883.



Witnesses:
J. M. Burnham
E. M. Johnson

William Pratt.
Inventor:
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM PRATT, OF FORT LARAMIE, WYOMING TERRITORY.

BROKEN-SHELL EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 280,239, dated June 26, 1883.

Application filed April 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PRATT, a citizen of the United States of America, residing at Fort Laramie, in the county of Laramie and Territory of Wyoming, have invented certain new and useful Improvements in Broken-Shell Extractors; 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.

This invention relates to an implement for extracting broken cartridge-shells from the chambers of breech-loading small-arms.

As is well known, the head of the ordinary metallic cartridge-shell frequently bursts or is blown off, and the headless shell is very difficult to extract from the chamber of the gun, and in the attempt to extract it with ordinary tools the gun-barrel and connected parts are frequently injured.

The object of my invention is to provide a tool by which such broken shells may be readily extracted without injury to the gun; and it consists in certain novel constructions and combinations of parts, which will be hereinafter particularly described, and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a view in elevation of a broken-shell extractor constructed according to my invention. Fig. 2 is a rear view thereof. Fig. 3 is view of the extracting-screw, its ratchet-wheel and pivot-screw detached. Fig. 4 is a side elevation of the tool as applied to use in extracting a shell from the chamber of a rifle.

The letter A indicates a jaw-piece attached to a handle, B, and having the jaws *a a*, arranged to receive between them a ratchet-wheel, C, which is fixed upon the shank of an extracting-screw, D; which shank passes through one of the jaws, while the screw projects at right angles therefrom. The inner end of the screw-shank is provided with a socket, *d*, to receive the tip of a pivot-screw, *e*, which passes through one of the jaws.

The letter F indicates a pawl-spring, which is secured by a screw, *f*, to the shank A' of the jaw-piece, and has its free end arranged to engage with the teeth of the ratchet-wheel C. It will now be seen that by vibrating the handle B in one direction the pawl F will be caused to drive the ratchet-wheel and turn the screw, and when the handle is moved in the opposite direction the pawl will slip over the ratchet-teeth, so that by vibrating the handle alternately back and forth the screw will be driven step by step into any article with which it may be engaged.

When, now, it is desired to extract a broken shell from the chamber of a gun, the breech-piece G, as shown in Fig. 4, is raised, the tip of the screw D is inserted as far as it will go freely into the end of the shell in the gun-chamber, and then by vibrating the handle B the threads of the screw will be caused to cut a corresponding thread in the interior surface of the shell, and thus become so firmly engaged therewith that by drawing the handle B backward the shell may be readily extracted. The extracting-screw is given a somewhat tapering shape, and its threads are sharp on their edges. The inner end of the screw-shank is squared to receive the ratchet-wheel, and all the parts may be readily taken apart and put together with an ordinary screw-driver.

I of course do not confine myself to the precise construction and arrangement of the parts as shown in my drawings, but may vary the same in any desired manner, for the better carrying out of my invention, without departing from the essential principles thereof.

What I claim is—

1. In an implement for extracting broken shells from gun-barrels, the combination, with an extracting-screw, of a ratchet-wheel fixed upon its shank, a handle arranged to turn upon said shank, and a pawl secured to said handle, and arranged to engage with the ratchet-teeth and turn the wheel when the handle is moved in one direction, and to slip over the teeth when the handle is moved in the opposite direction, substantially as described.

2. In an implement for extracting broken

shells from gun-barrels, the combination, with
the jaw-piece A, of the extracting-screw D,
having its shank passed through one of the
jaws of said jaw-piece, the ratchet-wheel fixed
5 upon said shank between the jaws, the pivot-
screw passing through one of the jaws and en-
tering the end of said shank, and the spring-
pawl secured to the jaw-piece shank and en-

gaging with the teeth of the ratchet-wheel,
substantially as described. 10

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

WILLIAM PRATT.

Witnesses:

CONSTANT WILLIAMS,

A. N. JACKSON.