

(No Model.)

3 Sheets—Sheet 1.

T. NORDENFELT.
BREECH LOADING ORDNANCE.

No. 282,008.

Patented July 24, 1883.

Fig. 1.

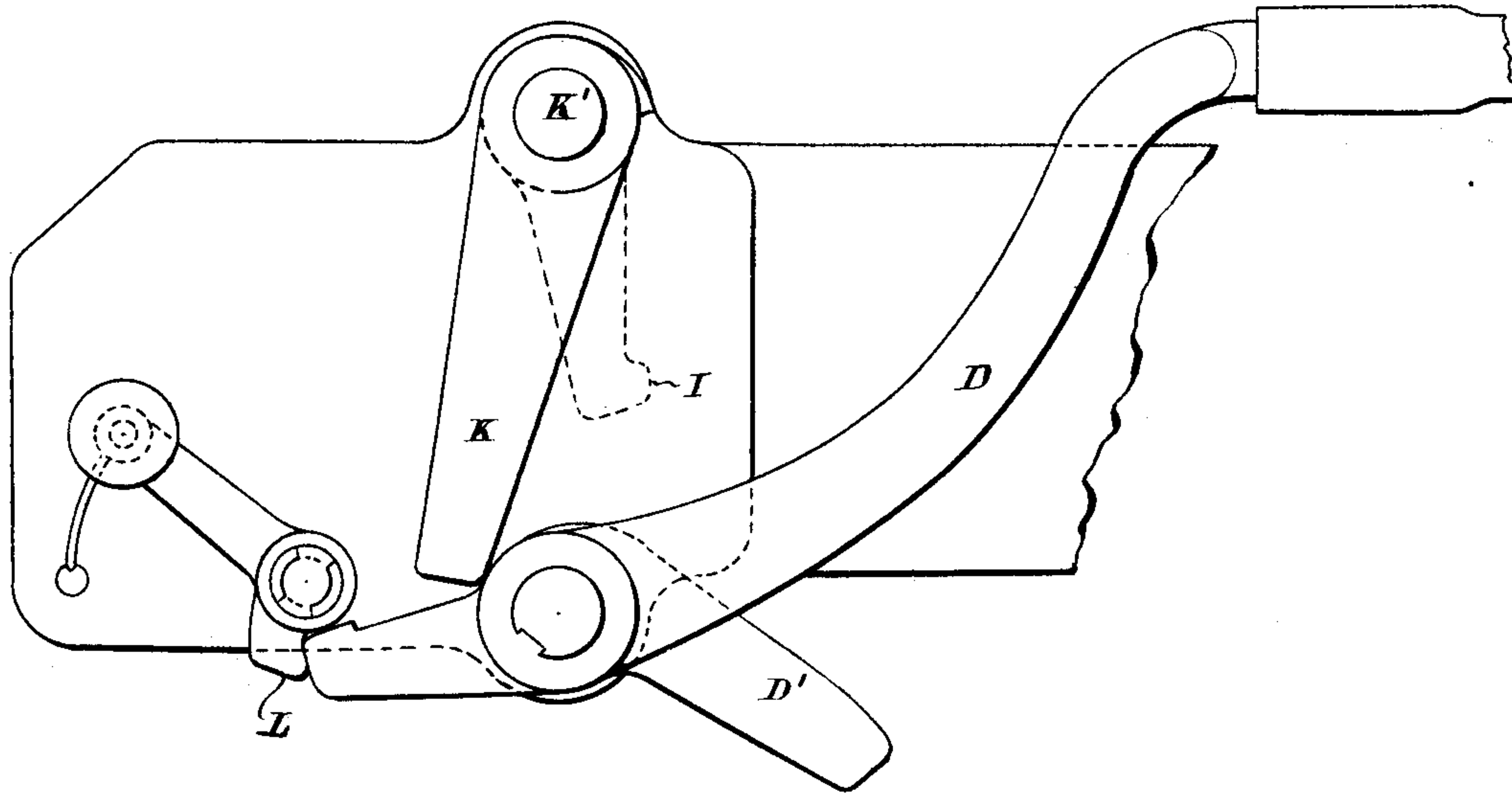
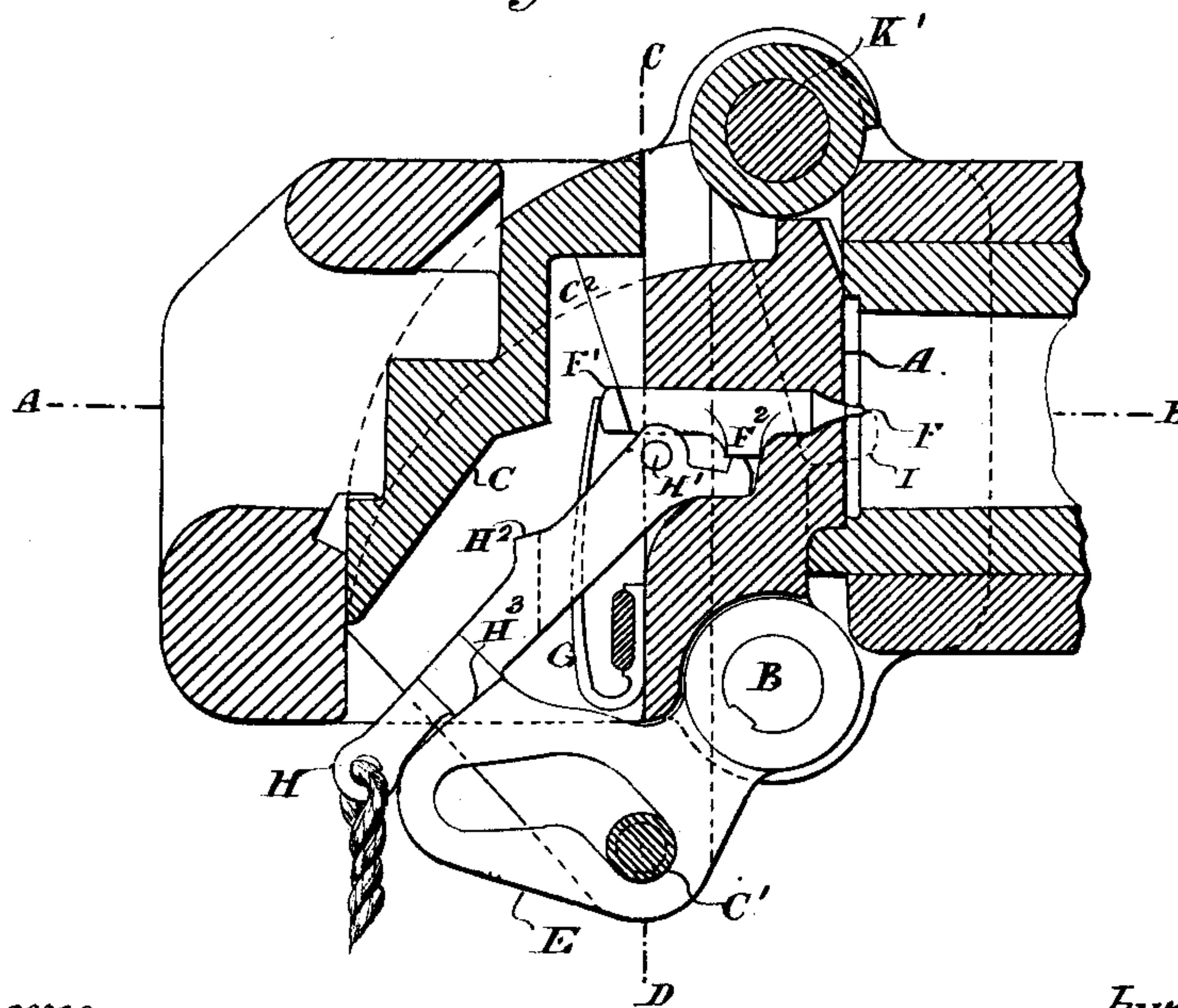


Fig. 2.



Witnesses.
James Young
Eugene Brown.

Inventor
T. Nordenfelt
By his attys
Walden Hopkins & Peyton

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Fig. 3.

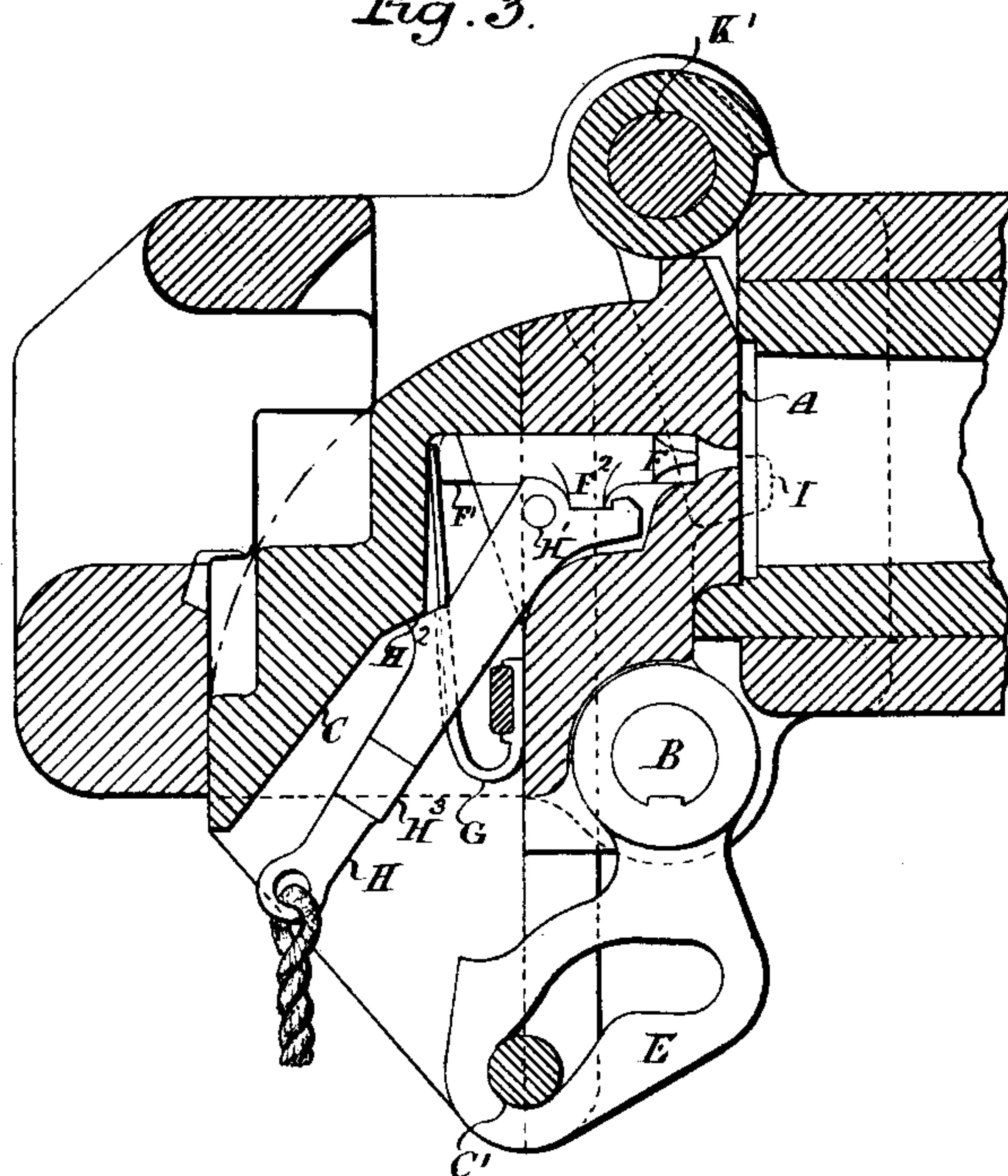
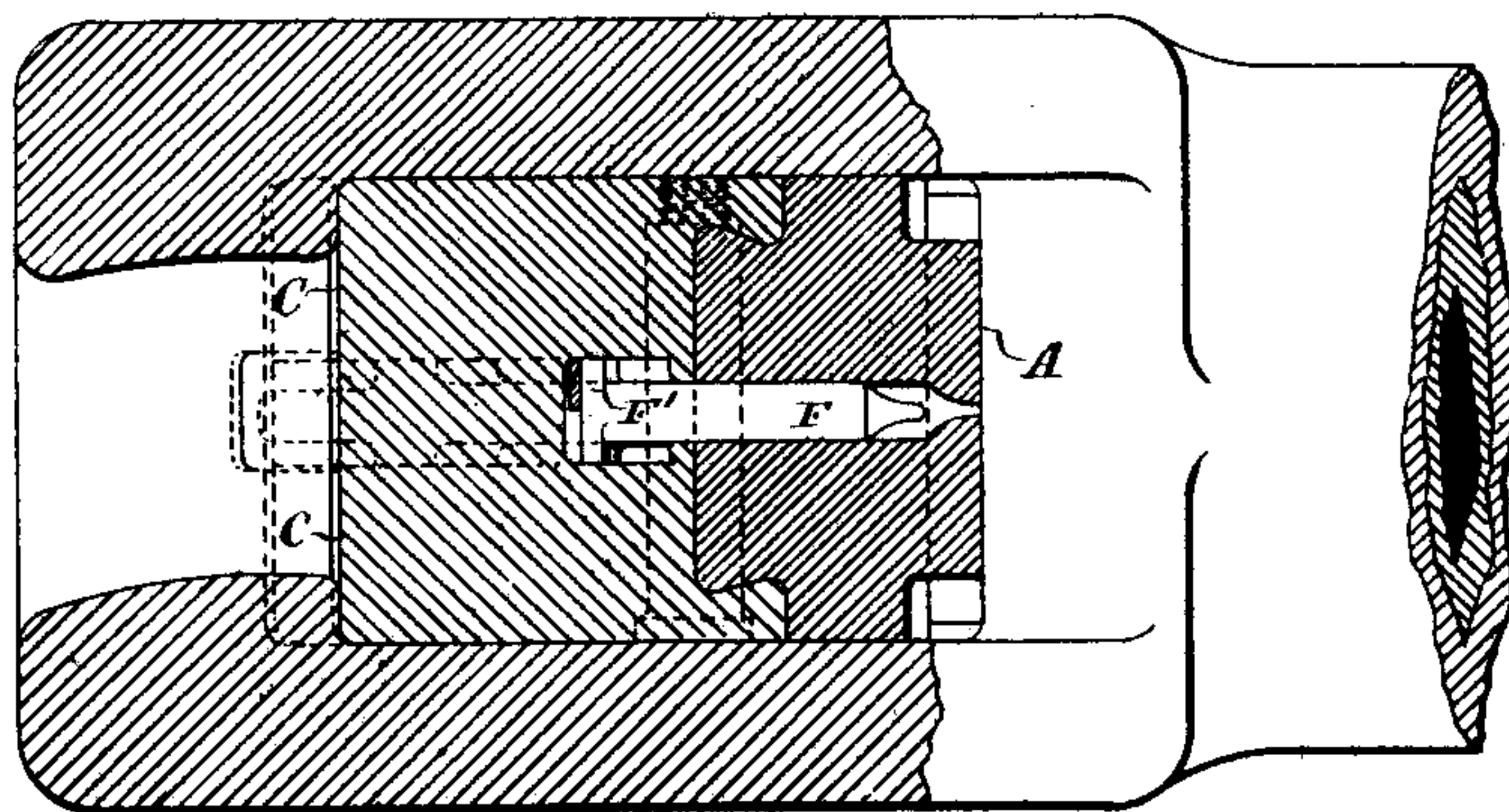


Fig. 4.



Witnesses.
James Young
Eugene Brown,

Inventor.
T. Nordenfelt.
By his attys.
Goddard, Hopkins & Peyton.

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Fig. 5.

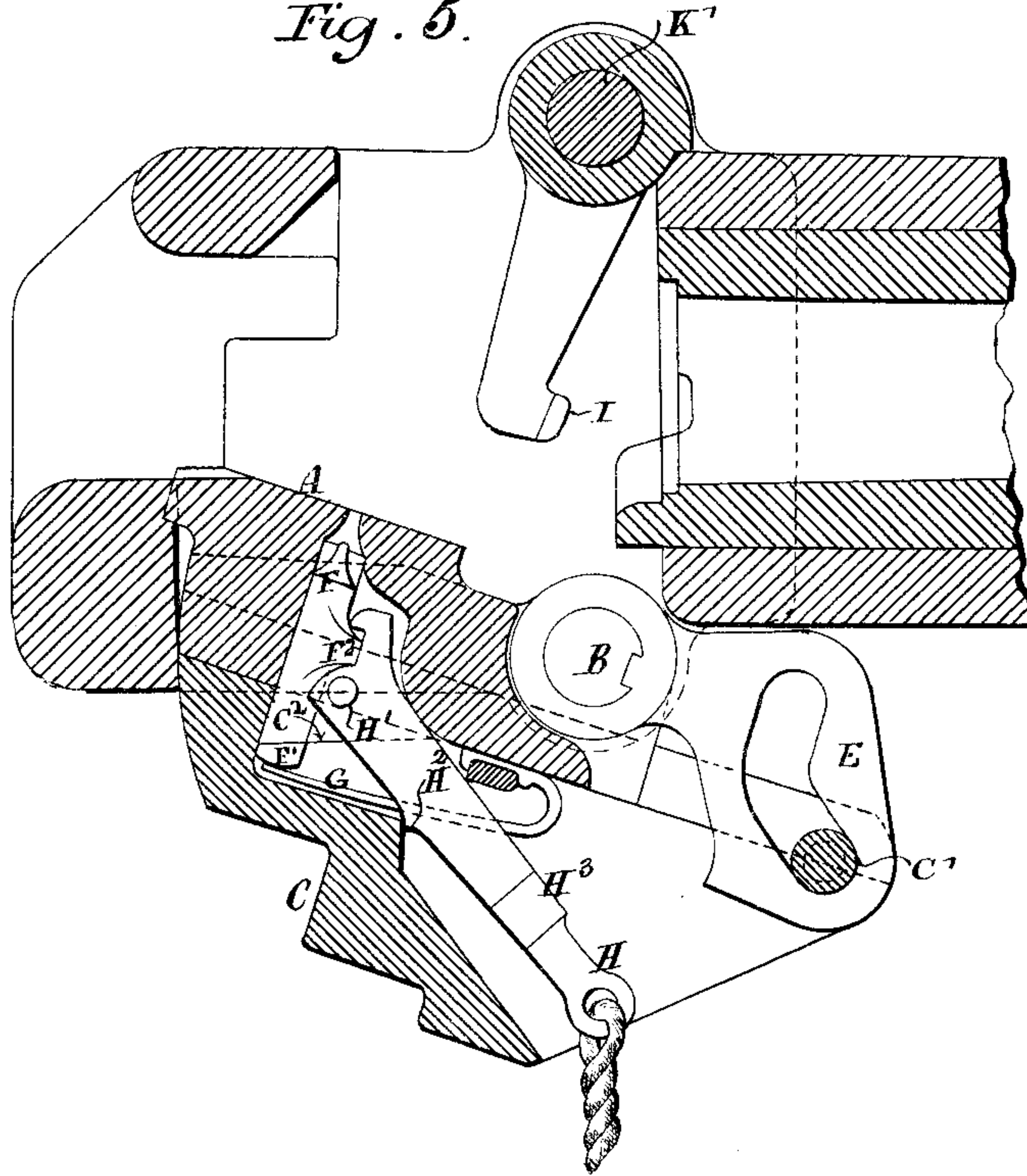
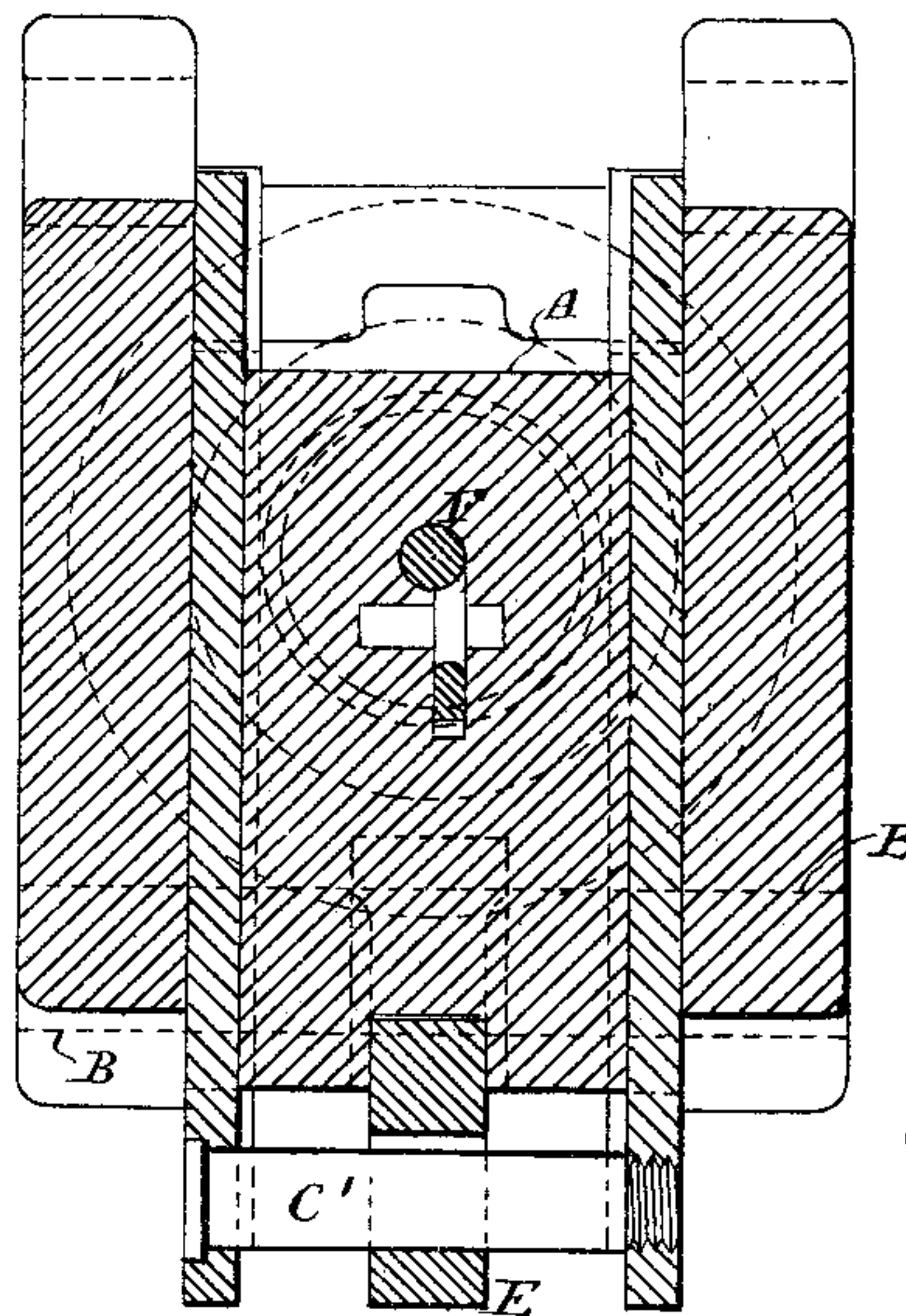


Fig. 6.



Witnesses.
James Young.
Eugene Brown.

Inventor
T. Nordenfelt.
By his attys.
Goldwin, Hopkins & Peck.

UNITED STATES PATENT OFFICE.

THORSTEN NORDENFELT, OF WESTMINSTER, ENGLAND.

BREECH-LOADING ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 282,008, dated July 24, 1883.

Application filed March 19, 1883. (No model.) Patented in Eng and May 25, 1882, No. 2,496, and in France April 20, 1882, No. 142,420.

To all whom it may concern:

Be it known that I, THORSTEN NORDENFELT, a subject of the King of Sweden, residing at 53 Parliament street, in the city of Westminster, England, have invented certain new and useful Improvements in Breech-Loading Ordnance, (for which I have received Letters Patent in Great Britain, No. 2,496, dated May 25, 1882, and in France a patent of addition, No. 142,420, dated April 20, 1882,) of which the following is a specification.

This invention has for its object improvements in breech-loading ordnance. The breech of the gun is closed by a breech-block which is mounted upon an axis. There is also a wedge upon the back of the said breech-block which locks it in its place. The axis receives motion by means of a lever-handle, and by a slotted arm it actuates both the breech-block and the wedge. In opening the breech the axis by its rotation first causes the wedge to be withdrawn, and then carries both it and the breech-block round until the open breech is exposed for the reception of the cartridge. The firing-pin for exploding the priming of the cartridge is contained in a recess in the breech-block, and is provided with wings or projections at its rear end. I also provide inclines within the wedge to act against the wings or projections and to draw back the firing-pin at the time when the wedge is moved in unlocking the breech-block. The firing-pin when thus pushed back is caught and retained by a trigger-like lever jointed to the breech-block. The rear end of the trigger-lever is contained in a recess in the wedge, and the form of the recess is such as to compel the trigger-lever to lay hold of the firing-pin at the proper time, so that it is unnecessary to provide the trigger-lever with a spring. The firing may be arranged automatically or otherwise, as may be desired. When automatic firing is not required, the trigger-lever has a lanyard attached to it, and then after the breech has been closed the pull upon the lanyard will free the firing-pin and allow it to be thrown forward by its spring; or when the firing is to be automatic the main handle is allowed a further movement after the breech is closed and locked by the wedge, and in this further movement the slotted lever upon the

axis comes against the trigger-lever and causes the release of the firing-pin. The spring of the firing-pin is a blade attached at one end to the breech-block and at the other pressing against the back of the firing-pin. When automatic firing is not desired, the movement of the handle is limited by means of a stop.

The invention is illustrated by the annexed drawings.

Figure 1 is a side elevation of the breech end of the gun. Fig. 2 is a vertical section, the parts being in the positions they occupy after firing. Fig. 3 shows the same parts in the position they occupy when the wedge has been drawn down and the breech-block is about to fall away, leaving the breech of the gun open for the insertion of the cartridge. Fig. 4 is a horizontal section on the line A B in Fig. 2. Fig. 5 is a vertical section, showing the breech open. Fig. 6 is a transverse section on the line C D in Fig. 2.

A is the breech-block.

B is the axis on which the breech-block is able to turn.

C is the wedge upon the back of the breech-block.

D is the lever-handle fixed on the axis B.

E is the slotted arm fixed on the axis B. The pin C', fixed in the wedge, passes through the slot.

F is the firing-pin. F' are the wings upon it, on which the inclines C' on the wedge act as the wedge is drawn down.

G is a mainspring attached to the breech-block and pressing the firing-pin forward.

H is the trigger-lever. It is pivoted at H' to the breech-block, and engages with the projection F' upon the firing-pin.

H² is a projection upon H, with which the wedge, when in its lowest position, comes in contact to insure the end of the trigger-lever being placed in the path of the projection on the firing-pin. H³ is another projection on the trigger-lever, which is struck by the slotted arm E when the handle D is moved forward to the full extent to cause the liberation of the firing-pin.

I is the extractor, which by acting against the flange of the cartridge-case causes it to be ejected from the gun after firing.

K is an arm outside of the chamber contain-

ing the breech-block, and secured upon the axis K' of the extractor. To operate this extractor this arm is struck by another arm, D', on the lever-handle D. The form of these 5 parts is such that the movement of the extractor is at first slow and powerful and afterward rapid, so that the cartridge-case may be thrown smartly out of the gun.

L is a stop or button in the position in which 10 it is represented in the drawings. It does not interfere with the movement of the lever, but it can be turned partly round and secured in such a position as to prevent the handle being brought fully forward, and then the firing 15 ceases to be automatic; but after each loading the gun may be fired by pulling the lanyard.

I claim—

1. The combination of the breech-block, the axis on which it is mounted, the lever-handle 20 for operating the axis, the wedge actuated by connection with the lever-handle, and by which the breech-block is locked in place, the firing-pin carried by the breech-block and retracted by the action of the wedge, and the mainspring 25 and trigger-lever carried by the breech-block, substantially as and for the purpose hereinbefore set forth.

2. The combination, substantially as hereinbefore set forth, of the breech-block, the axis 30 on which it is mounted, the wedge for locking the breech-block, the lever-handle for operating the breech-block, and mounted on the axis thereof, and the slotted arm of the lever-handle for actuating the wedge.

35 3. The combination of the extractor, the axis upon which it is mounted, the arm secured to

said axis outside of the chamber for the breech-block, the breech-block axis operated by the lever-handle, and the arm thereon for actuating the extractor by striking the arm on its 40 axis, substantially as and for the purpose hereinbefore set forth.

4. The combination of the breech-block, the axis on which it is mounted, and by the turning movements imparted to which by a lever-handle the gun is opened and closed, the firing-pin 45 carried by the breech-block, the trigger-lever, also carried by the breech-block and serving to engage the firing-pin when retracted, and the wedge actuated by connection 50 with the lever-handle, and serving as it is withdrawn to retract the firing-pin into the position of engagement with the trigger-lever, substantially as and for the purpose hereinbefore set forth. 55

5. The combination of the breech-block, the axis on which it is mounted, and by the turning movements imparted to which by a lever-handle the gun is opened and closed, the firing-pin 60 carried by the breech-block, the trigger-lever, also carried by the breech-block, and engaging the firing-pin when retracted, and the arm on the breech-block axis operating upon the trigger-lever to cause it to release 65 the firing-pin, substantially as and for the purpose hereinbefore set forth.

THORSTEN NORDENFELT.

Witnesses:

JOHN DEAN,

J. WATT,

Both of 17 Gracechurch Street, London.