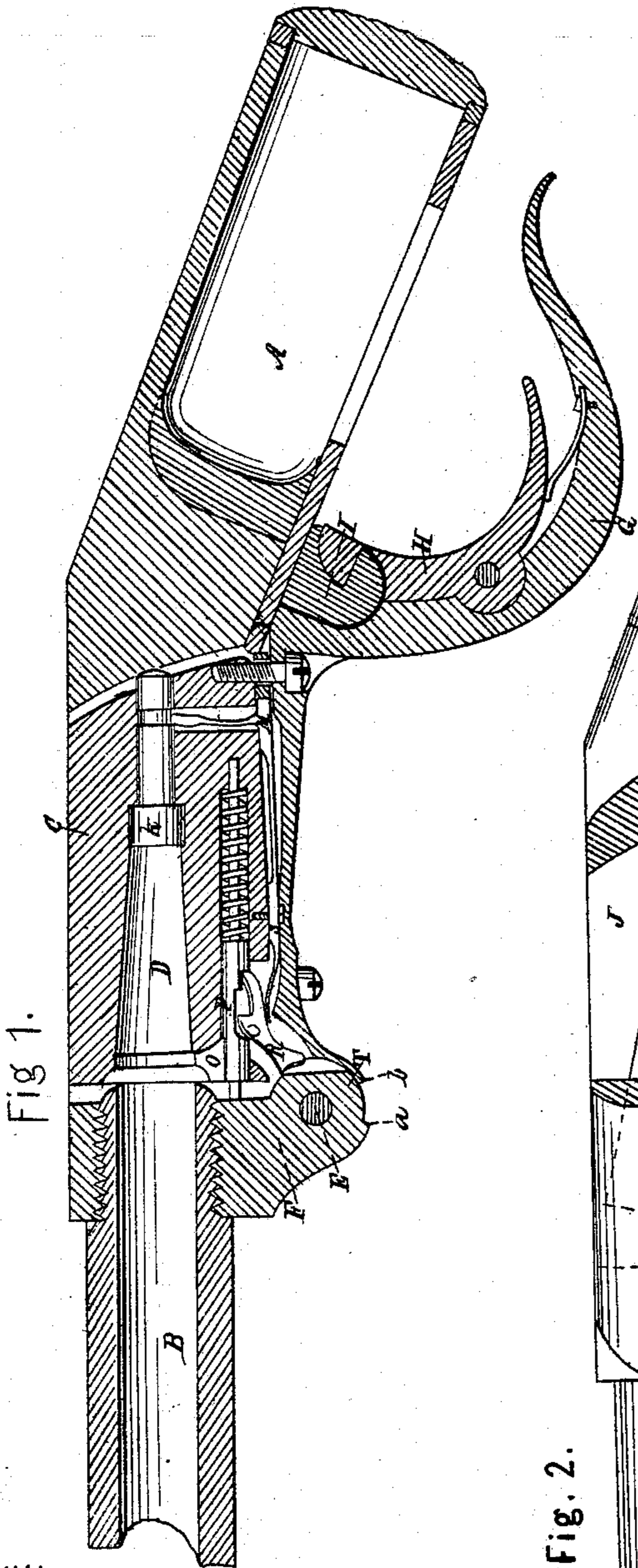


G. P. & G. F. FOSTER,
Breech-Loading Fire-Arm.

No. 56,399.

Patented July 17, 1866.



Witnesses.

C. D. Smith
W. F. Hall

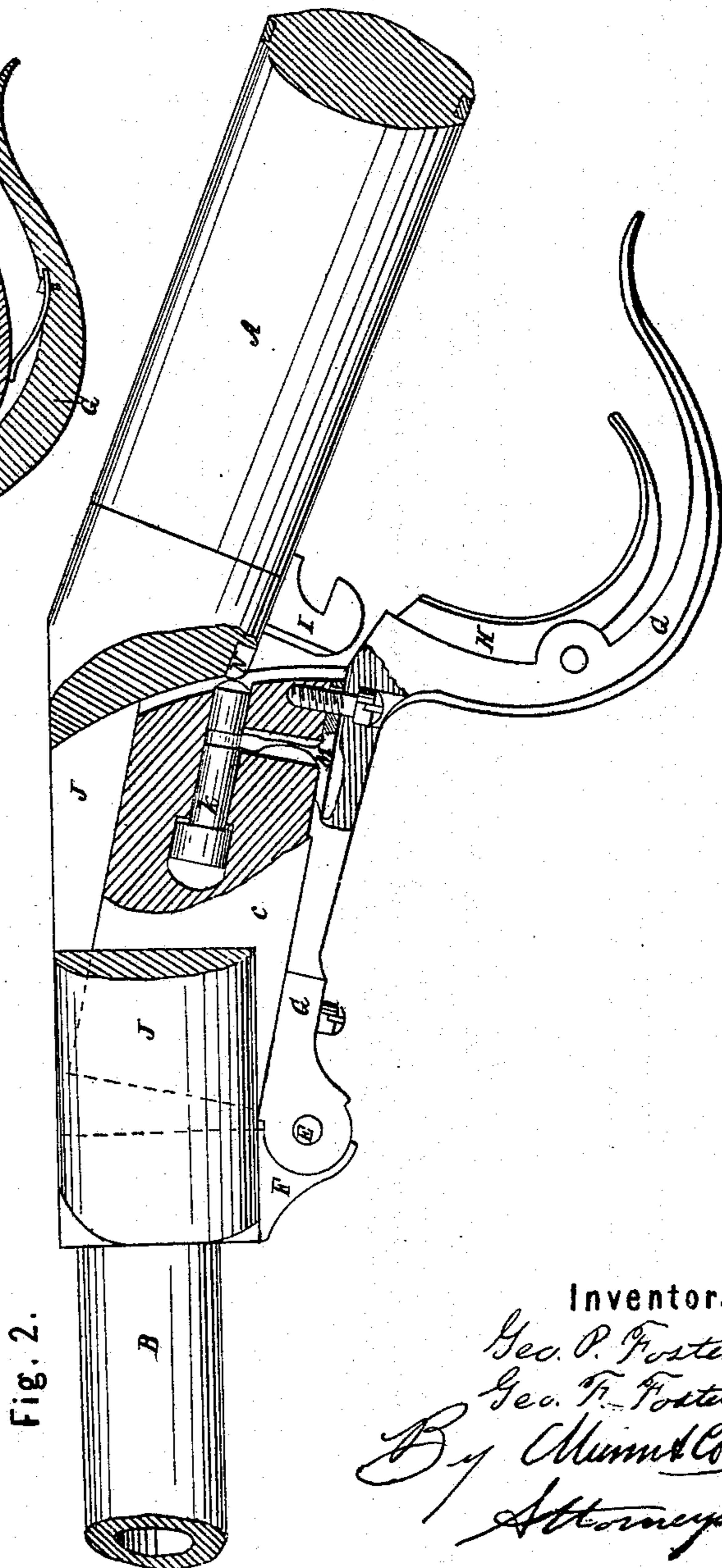


Fig. 2.

Inventors.

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UNITED STATES PATENT OFFICE.

GEO. P. FOSTER AND GEO. F. FOSTER, OF MOHAWK, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 56,399, dated July 17, 1866.

To all whom it may concern:

Be it known that we, GEORGE P. FOSTER and GEORGE F. FOSTER, of Mohawk, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Fire-Arms, consisting of a device for loosening the cartridge-cases from their beds after recoil; and we do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the annexed drawings, which are made part of this specification, and in which—

Figure 1 represents our improvement in longitudinal vertical section. Fig. 2 is an elevation, parts being removed to show the internal arrangement more thoroughly.

Similar letters in each figure refer to like parts.

The object of the device is to loosen the cartridge-case from the bed in which it has been driven by the impingement of its forward end against the rear of the barrel in the act of closing the swinging chambered breech-block, and in which it is further impressed by the recoil in the act of discharge.

To enable one skilled in the branch of manufacture to which our invention applies to construct and use the same, we will proceed to describe it.

A is a portion of the stock, and B a portion of the barrel, of a fire-arm, in which the breech-block C, with its cartridge-chamber D, swings downward to load and upward to close it for firing, moving upon the pintle E in the lug F, which projects downward beneath the barrel.

We will describe in general terms the portions shown, which are not especially sought to be claimed as new under the present application, so that the connection may be apparent.

This fire-arm is one of that class in which the load in a fixed metallic cartridge-case is inserted at the forward end of a breech-block which swings downward on a pivot, so as to expose its forward face and the opening of the cartridge-chamber. The pivotal point has been mentioned, and the handle by which the swinging is effected is shown at G, while the spring-catch H and hook I retain the chamber in its upward position.

What remains of the details of construction

will be introduced incidentally in tracing the motions of raising and depressing the breech-block.

The handle being vibrated downward to the full extent, which is limited by the points *a b*, the chambered breech-block, which is attached to the handle, the latter being hinged at E, is thereby withdrawn from the mortise or chamber J, and its forward end exposed, so that the cartridge may be introduced by hand. After loading the handle G is vibrated upward, and as soon as the forward end of the cartridge presses upon the rear of the barrel B the cartridge is so forced to the rear as to push back the pin K, thereby deflecting the spring L, whose end enters an annular slot in the pin K. The spring L projects at an angle from a flat spring, M, which is secured to the under side of the breech-block C in any suitable manner. The purpose of the spring L is solely in relation to the pin K, whose office is more especially apparent in describing the motions of unclosing the breech-block after firing.

After the discharge the trigger H is pressed downward, which releases it from the catch I, and the handle being drawn down the rear end of the pin K, which occupies a tubular opening at the rear of the cartridge-chamber D, is brought in contact with the forward end of the plate N, and the pin K thereby forced forward, so as to start the empty cartridge-case out of its bed, so as to be acted upon by the ejector, which consists of a headed pin, O P, which had been pressed toward the rear by the impingement of its forward end upon the piece F, so that the sear engaged its notch and held it back, compressing the spring Q. As the breech-block descends, the forward projection of the sear strikes against a protuberance, T, on the lug F, and, throwing the point of the sear out of the notch, allows the spring Q to forcibly throw the flange O of the pin P against the projecting bead of the cartridge-case and forcibly expel the latter clear out of the chamber, so as to be entirely removed and beyond the necessity of further manipulation.

The object is to close by one motion and open for loading, expelling the cartridge clear of the gun by another motion.

The action of the spring L, in connection with the pin K, is to be deflected by the backward pressure of the cartridge upon the

pin, and to be restored to its normal position by the pressure of the rear of the pin K upon the projection N. It then sustains the weight of the pin and cartridge till the ejector comes into action to throw the shell out of the gun.

The pin K may be withdrawn from the breech-block when requisite by deflecting downward the spring M by pressure upon its rear end, which withdraws the spring L from the groove in the pin, and allows it to pass forward when the mouth of the chamber D is pointed toward the earth.

The ammunition, being fixed in strong primed cases, exposes the chambers to but little trouble on the ground of firing and clogging. The gas-check of these cartridges is almost complete.

Having thus described our invention, what

we claim therein as new, and desire to secure by Letters Patent, is—

The pintle K, constructed and operated substantially as described—that is to say, being forced to the rear by the back pressure of the cartridge in loading, driven forward by the impingement of its rear end upon a projection on the abutment or its equivalent, and sustained by the spring L in the annular groove in position to hold the cartridge-case free for subsequent retraction or ejection.

GEO. P. FOSTER.
GEO. F. FOSTER.

Witnesses:

ALLEN CAMPBELL,
E. L. PRINCE.