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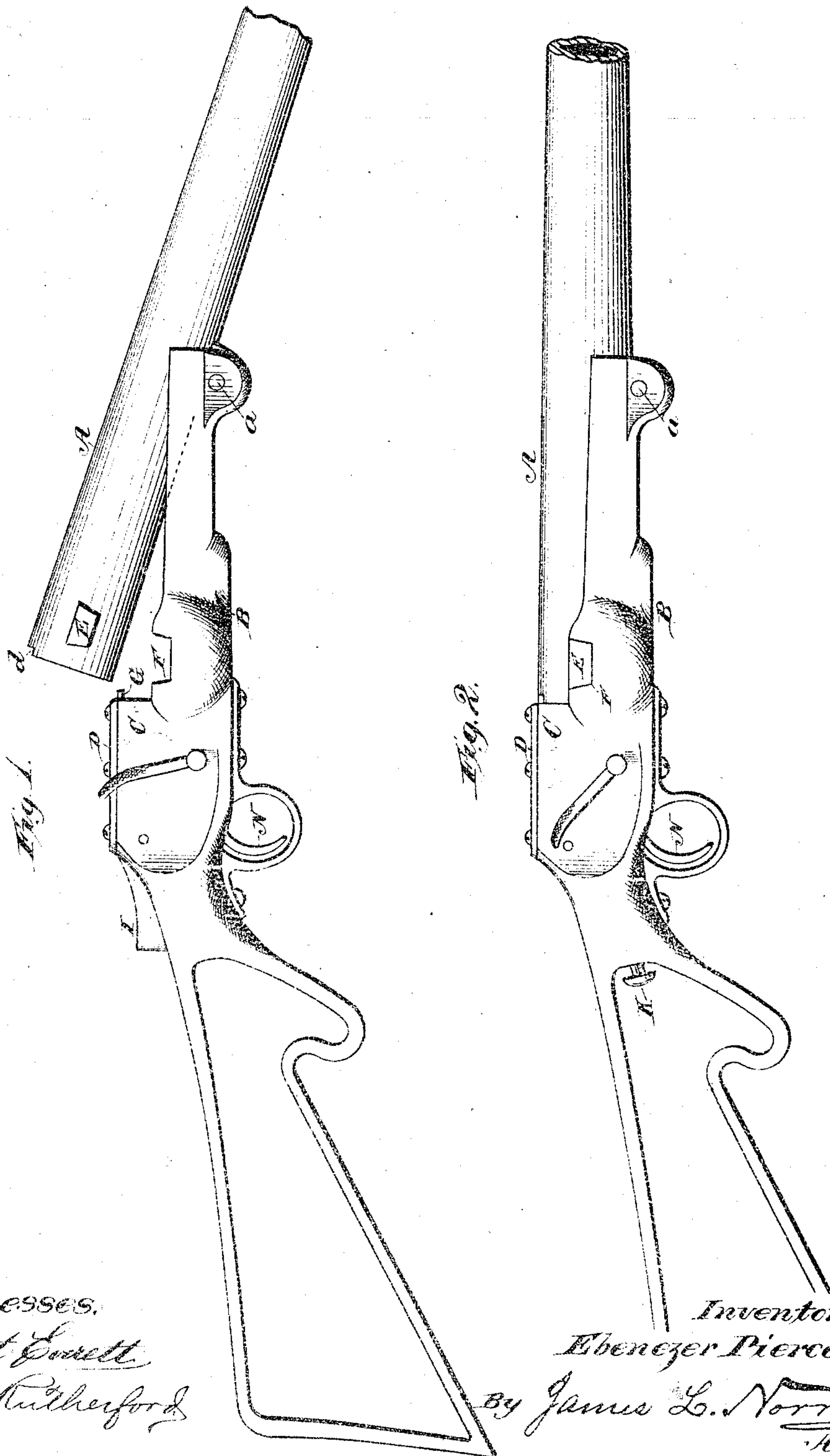
2 Sheets—Sheet 1.

E. PIERCE.

BREECH LOADING FIRE ARM.

No. 255,330.

Patented Mar. 21, 1882.



Witnesses.

Robert Corbett.

J. A. Rutherford.

Inventor.

Ebenezer Pierce.

By James L. Norris.

Atty.

(No Model.)

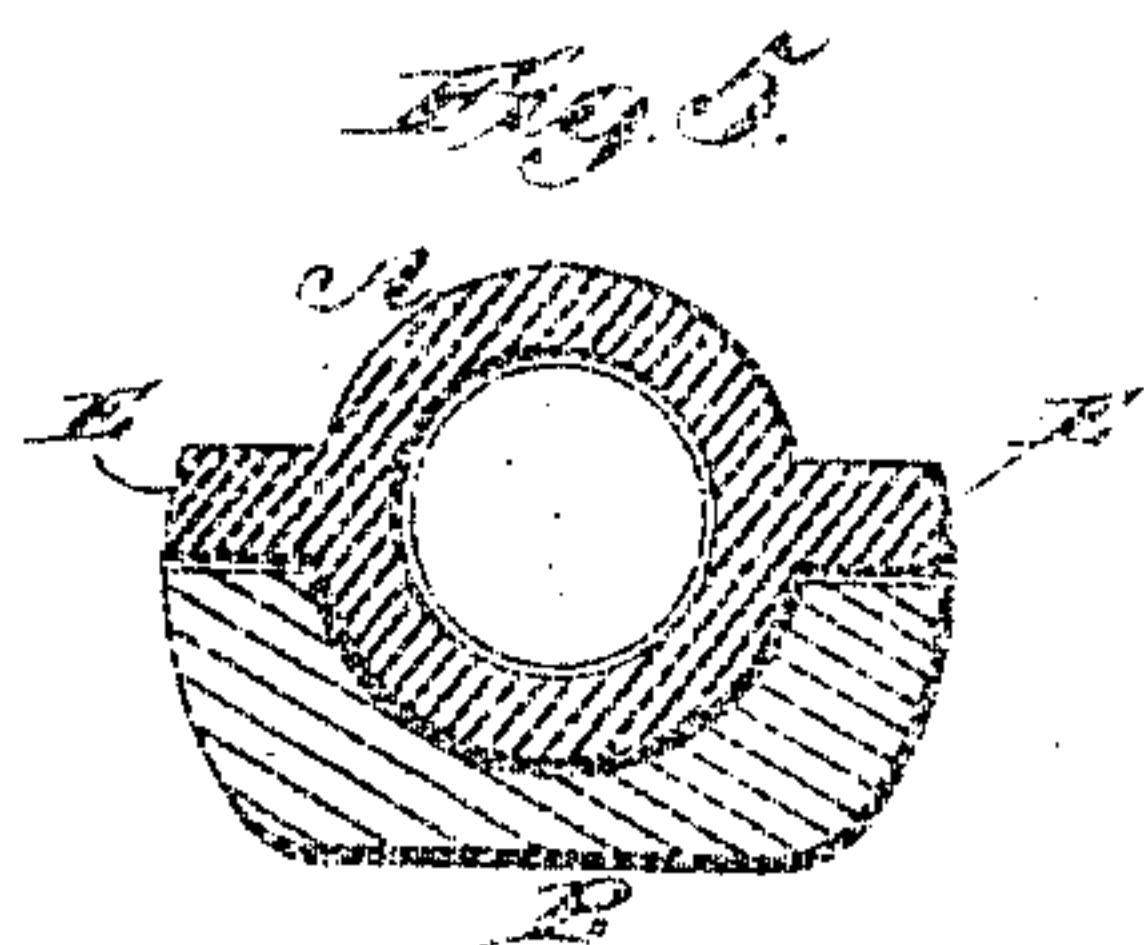
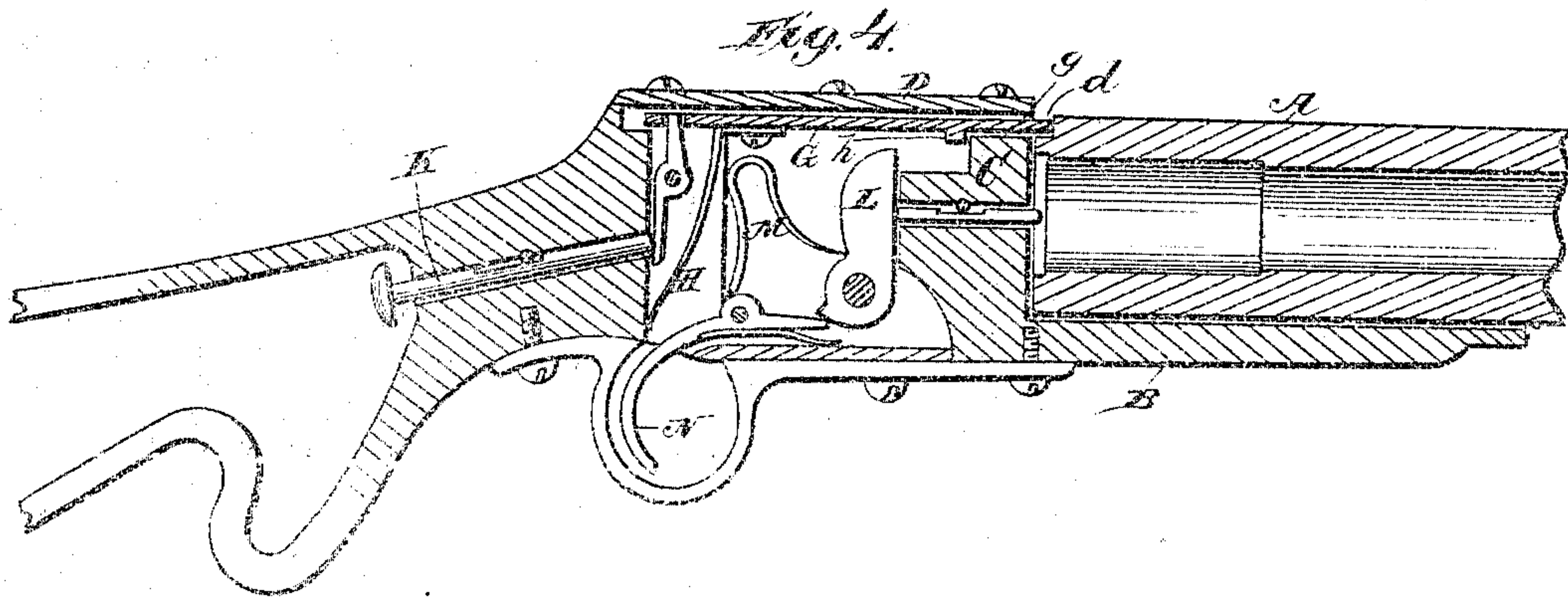
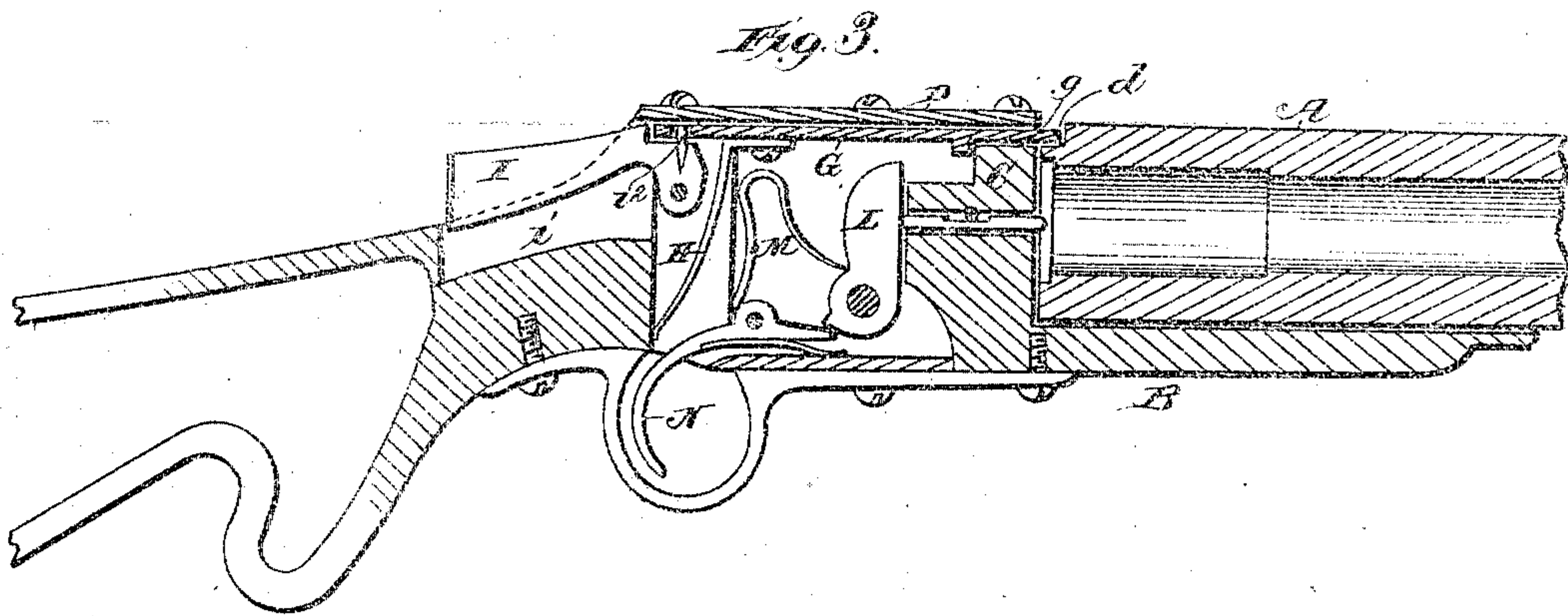
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WITNESSES.

Red Cross

J. A. Tupperford

Inventor:

Ebenezer Pierce.

by James L. Norris.
N.Y.

UNITED STATES PATENT OFFICE.

EBENEZER PIERCE, OF NEW BEDFORD, MASSACHUSETTS.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 255,330, dated March 21, 1882.

Application filed September 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER PIERCE, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Breech-Loading Shoulder-Guns for Killing Whales, of which the following is a specification.

This invention relates to a breech-loading gun for killing whales; and it consists in a metal gun, the stock and barrel and the locking and firing mechanism of which all have the peculiarities of construction and organization hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the gun with the rear end of its barrel opened or tilted up. Fig. 2 is a similar view with the rear end of the barrel closed or tilted down. Fig. 3 is a longitudinal section of Fig. 1. Fig. 4 is a like view, showing a modification in the construction of the retractor. Fig. 5 is a transverse section through the stock and barrel.

The barrel A of the gun is pivoted to the stock B by means of any suitable pivotal connection—as, for instance, by a pivot, *a*, passing through lugs upon the stock and an intermediate lug upon the barrel. As guns for killing whales are required to be of great weight and strength, the entire stock of this gun is formed of a single metal casting with a skeleton butt, whereby the desired weight and strength are attained, and at the same time a minimum quantity of metal is used. The stock is cast with a breech-piece, C, and has the requisite hole or passage formed through it for a firing-pin, and it is also formed with a chamber in rear of the breech-piece for the lock, the said chamber being closed by a cap-plate, D, that is secured by means of screws upon the stock. The rear end of the barrel tips upwardly, so as to expose its open end for receiving the bomb-lance and cartridge, and after loading it is tipped down against the breech-piece. The barrel is provided on opposite sides, near its rear end, with the laterally-projecting lugs E, one on each side, and the metal stock is cast with a recess, F, on each side, for receiving the said lugs when the rear end of the barrel is tipped down into the forward channeled portion of the stock. These recesses, which

are located in advance of the breech-piece, are formed in the sides of the said channeled part of the cast-metal stock; and in order to provide broad bearings for the lugs the cast-metal stock is somewhat enlarged at the points where the recesses are formed. The lugs will be preferably made slightly wedge-shaped in cross-section, and the walls of the recesses have corresponding inclinations to facilitate the engagement of the lugs in the recesses, or their disengagement therefrom when the rear end of the barrel is tilted up.

During the act of firing the shock and strain will be transferred from the barrel to its lugs, and hence the walls of the recesses within which the lugs are fitted will receive the impact of recoil. In this class of guns the recoil is very heavy, and hence great strength of parts is essential. These lugs being arranged on the sides of the barrel directly opposite each other, and about in line with the axis of the barrel or its longitudinal center, and being received into the said recesses, will entirely relieve the pivot by which the barrel is connected with the stock from all strain during firing, and will also relieve the locking plate or latch from pressure and strain; also, they will so hold the barrel that but a slight locking device will be required for maintaining the rear end of the barrel in position against the breech-piece.

The device for locking down the barrel consists of a slide-plate, G, arranged below the top or cross plate, D, with its forward end resting in a recess, *g*, formed in the top portion of the breech-piece, and its rear end extending in a suitably cut-away portion of the stock just back of the lock-chamber. The rear end of the barrel will be slightly cut away at its upper edge, so as to form a recess, *d*, having its bottom flush with the bottom of the recess *g* in the breech-piece, in order that when the barrel is down the locking-plate can be thrown forward so as to engage the barrel. This locking-plate is normally thrown forward by means of a spring, H, arranged to bear against the back wall of the locking-chamber, and it is provided upon its under side with a stop, *h*, which, when the locking-plate is thrown forward, strikes against the breech-piece and checks the throw of the locking-plate at the proper point. This

stop will be of especial use when the rear end of the barrel is tilted up, since it will obviate any liability of the locking-plate projecting too far out.

5 As a means for retracting the locking-plate in order to free it from engagement with the barrel, I provide a retractor consisting of a lever, I, pivoted within a recess, i, in rear of the lock-chamber, and connected with the locking-plate by means of a stud or lip, i², entering a slot in the locking-plate. The rear long arm of this pivoted retractor will normally be in an elevated position above the stock, so that by depressing the same by hand the locking-plate 10 will be drawn back against the spring-pressure, and upon releasing it the locking-plate will be instantly thrown forward and the retractor again raised. In Fig. 4 I have shown a somewhat modified construction of retractor, it consisting in this instance of a pin, K, arranged to slide freely through a longitudinal bore between the locking-chamber and the space in the skeleton butt-end of the stock. The rear end of this pin has a suitable head or knob, 25 and its forward end is arranged to act against the lower end of a small lever which is pivoted within the lock-chamber. The upper end of this lever engages in a recess formed in the locking-plate, so that by pushing forward the pin this lever will be vibrated and thereby retract the locking-plate. A suitable stop device will be provided for preventing this form of retractor from coming out—such, for instance, as a small pin connected with the stock and received in an elongated recess in the retractor-pin. 35

The gun will be provided with a suitable cock or hammer, L, pivoted within the lock-chamber and acted upon by the spring M, a 40 cocking-lever being arranged upon the hammer-spindle outside of the gun for the purpose of cocking the hammer. A trigger-guard will be secured to the stock and a trigger, N, employed for holding and releasing the hammer, at the will of the operator, as usual. 45

In English Patent No. 139 of the year 1865 is shown a breech-loading fire-arm in which a false breech is screwed to a main breech and provided with two arms having between them 50 a tapering recess, and the hinged barrel is provided on each side with a front and rear laterally-projecting tapering projection, the latter resting in the tapering recess and the former bearing against the front arm on the false 55 breech, the barrel being locked in the firing

position by means of a hook pivoted to the exterior of the trigger-plate, adapted to engage the rear projection on the barrel. This construction of breech-loader would not be practical for use as a bomb-gun for killing whales, 60 because exceedingly heavy charges are necessary, and in firing the gun the excessive shocks, strains, and vibrations to which such guns must be subjected would soon loosen or rupture the screw attachment of the false breech-piece with 65 which the hinged barrel interlocks, as in the English patent referred to. In that patent it is necessary to provide the hinged barrel with two projections on each side to embrace the front upright arm on the false breech, and to afford means for a pivoted hook to lock the barrel in a firing position; and such construction renders the said front upright arm liable to be broken off, especially so if the construction be used in bomb-guns, where excessive 75 charges must be used. In my invention the bomb-gun is composed wholly of metal and the projections on the barrel rest in recesses cast or formed directly in the metal frame, whereby the parts are capable of withstanding all shocks, strains, and vibrations to which the gun may be subjected. 80

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is— 85

A breech loading shoulder-gun for killing whales, combining in its structure the tilting barrel having projecting lugs, the metal stock, the lock-chamber, and enlargements in advance of the breech-piece, having recesses formed in 90 the enlargements for receiving the lugs upon the barrel, the mechanism for locking and releasing the barrel, embracing the slide for engaging the rear end of the barrel, and located to work below the cap-plate of the locking-chamber, the spring for throwing the locking-plate forward, the retractor for drawing the locking-plate back, and the spring-hammer 95 for firing the gun, the locking and firing mechanism being boxed together within the locking-chamber of the stock, said parts being all constructed and arranged substantially as shown and described. 100

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses. 105

EBENEZER PIERCE.

Witnesses:

JAMES L. NORRIS,

JAMES A. RUTHERFORD.