

E. A. SUTCLIFFE.
Breech-Loading Ordnance.

No. 150,442.

Patented May 5, 1874.

Fig. 1.

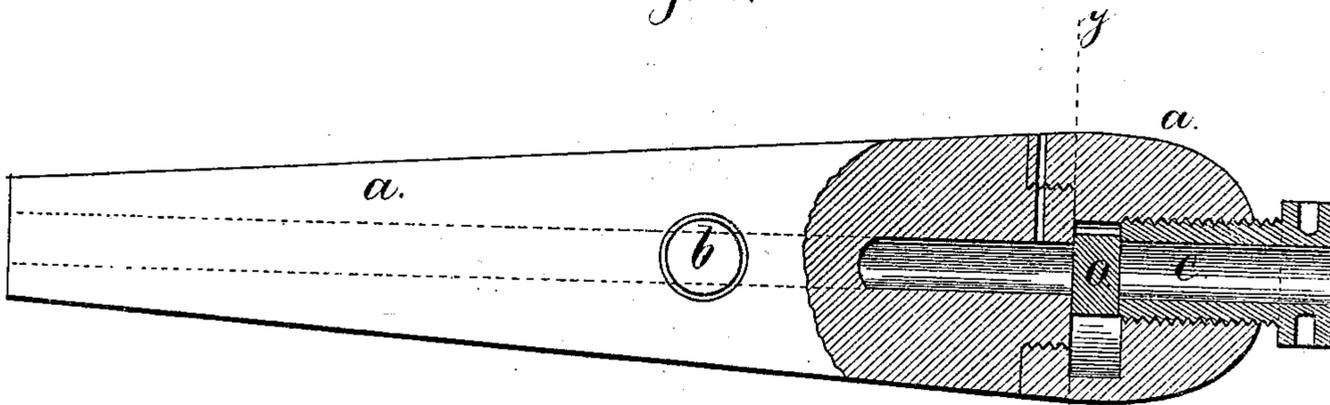


Fig. 2.

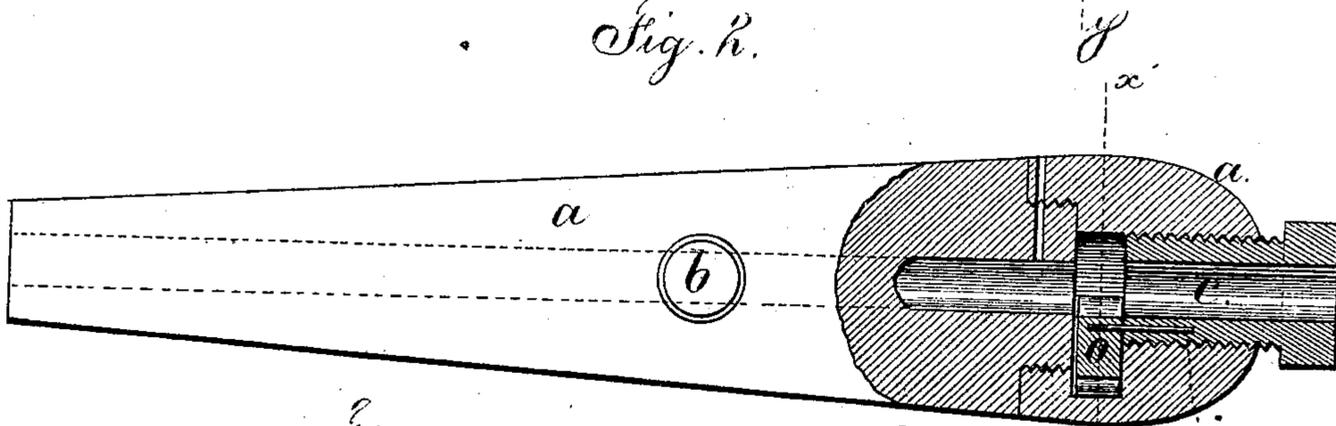


Fig. 3.

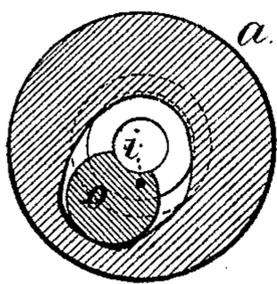
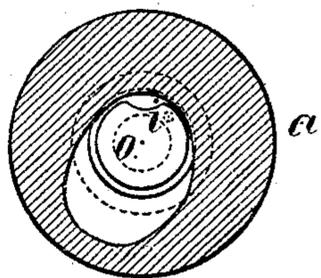


Fig. 4.



Witnesses

Chas H. Smith
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att'y

UNITED STATES PATENT OFFICE.

ELIHU A. SUTCLIFFE, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADING ORDNANCE.

Specification forming part of Letters Patent No. **150,442**, dated May 5, 1874; application filed October 7, 1873.

To all whom it may concern:

Be it known that I, ELIHU A. SUTCLIFFE, of the city and State of New York, have invented an Improvement in Breech-Loading Ordnance, of which the following is a specification:

The present is an improvement upon the device shown in my Patent No. 39,596. In that patent the breech-stopper is connected to the hollow breech-screw by a pin, so that the stopper is raised up to place in the act of screwing in the breech-screw.

In the aforesaid patent there is nothing to guide the cartridge across the transverse mortise, and cause it to pass correctly into the chamber of the gun.

My present invention is made for facilitating the insertion of the cartridge; and consists in a breech-stopper moved in a lateral slot and containing a concavity or trough in its periphery, whereby a guide or support is given for the cartridge in passing across the mortise in which the breech-stopper is inserted. At the same time the amount of rotary movement given to the breech-screw to remove the breech-stopper from behind the chamber of the gun is lessened, and the breech becomes a stop that determines the extent of motion of the breech-screw in opening the gun.

In the drawing, Figure 1 is a partial longitudinal section of a cannon with my improvements, the breech being closed. Fig. 2 is a similar view with the breech open. Fig. 3 is a cross-section at the line *x x*, and Fig. 4 is a similar view at the line *y y*.

The cannon or gun *a* is made with trunnions *b* and a hollow breech-screw, *c*, similarly to those shown in aforesaid patent, and at the inner end of the breech-screw is a crank-pin, *i*, for moving the breech-stopper *o* laterally in the mortise formed transversely of the gun. At one side of the breech-stopper is a peripheral

depression or trough, that is so located in respect to the pin *i* that when the breech is opened the peripheral depression will be in line with the bottom of the caliber or chamber of the gun, and form a guide and support for the cartridge as it is passed from the hollow breech-screw into the chamber of the gun. The mortise is not cut through the side of the gun, and the depth of the same is such as to form a stop to the breech-stopper in opening the same, as seen in Fig. 3; thereby the parts are arrested when the breech has been fully opened, and the peripheral depression is in line with the chamber. There may be a stop upon the breech and an arm upon the breech-cylinder to arrest the movement of the breech-screw at the proper point when the breech is opened.

When the breech-stopper is pressed against the rear end of the chamber, as in Figs. 1 and 4, the same is concentric with the hollow breech-screw, and being of less diameter may be withdrawn by unscrewing the hollow breech-screw. In this case the breech-stopper should be held in position so as not to drop into the mortise, and for this purpose a hole or holes may be made in the back face of the stopper to receive a movable prong or fork inserted through the tubular breech-screw.

I claim as my invention—

The combination, with the gun having the lateral mortise, as shown, of the circular breech-block and hollow screw, when constructed, combined, and operating as set forth, whereby such breech block and screw are stopped in position for the cartridge to be inserted by the bottom of the mortise, as set forth.

Signed by me this 31st day of March, A. D. 1873.

ELIHU A. SUTCLIFFE.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.