





# UNITED STATES PATENT OFFICE.

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## BREECH MECHANISM FOR ORDNANCE.

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*To all whom it may concern:*

Be it known that I, CHARLES H. TESCH, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Ordnance; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a cannon having a simple, economical breech-closer that may be securely locked in place without endangering premature explosion of a charge in the cannon, and which may also serve as a carrier for shells; said invention consisting in a cannon having a continuous bore and a recess communicating therewith, a breech-closer of peculiar construction involving spring-resisted pivotal blocks, and a plunger for actuating the blocks against resistance of the springs to cause an engagement with the aforesaid-recess.

The invention further consists in providing the breech-closer with a recessed front lip for engagement with the rim of a cartridge shell.

In the drawings: Figure 1 represents a vertical longitudinal section of a portion of a cannon embodying my invention, the section being taken on line 1—1 of the succeeding figure; Fig. 2, a transverse section taken on line 2—2 of the preceding figure; Fig. 3, a vertical longitudinal section of the breech-closer on a different plane from that shown in the first figure; Fig. 4, a transverse section taken on line 4—4 of the preceding figure, and Fig. 5, a vertical longitudinal section taken on line 5—5 of the fourth figure.

Referring by letter A represents a cannon having a continuous bore, this bore being enlarged at the breech of the cannon to form an annular shoulder *b*, and an annular recess, the latter being intermediate of said shoulder and butt of said cannon.

The breech-closer herein shown comprises a pair of end disks B, C, and intervening expansion blocks D united by screw-pins *d* although the construction and connection of said parts may be otherwise than herein shown so long as provision is made for pivotal action of the blocks, the latter being normally flush with the remainder of said breech-closer to form a cylinder having a diameter the same

as that portion of the cannon-bore in rear of the shoulder *b* above specified, and by suitable means, such for instance as those hereinafter described, the blocks are moved outward at will into the recess portion of the cannon to lock the aforesaid breech-closer in position.

As herein shown I prefer to provide the forward end of the breech-closer with a recessed front lip *e* for engagement with the rim *f* of a cartridge-shell F, and thus said breech-closer may serve as a shell extractor. In detail those pivotal expanding blocks or sections of the breech-closer herein shown are provided with rear shoulders *g* opposed to the ends of springs *h* retained on the pins *d* and having their other ends opposed to the wall of a front recessed portion of the adjacent rear disk B that also forms part of said breech-closer.

To actuate the blocks D against resistance of the springs *h*, a plunger of some description operated from the rear of the disk B is necessary, and as a convenient form of such a device I show a pin G having a conical collar *i* and reduced forward portion *j*, said pin being loose in both ends of the breech-closer.

The blocks D are recessed to conform to the conical collar and forward portion of the plunger, and the rear disk B has a counter-sunk recess *k* for the reception of said collar when the plunger is retracted. As herein shown the plunger may also serve as a firing pin for the cartridge, but it is within the scope of my invention to have said firing pin independent of said plunger.

In practice with that form of breech-closer herein specifically set forth, the plunger is retracted in order for the blocks D to automatically come flush with the disks B, C, when said breech-closer is to be placed in the cannon or withdrawn therefrom.

Assuming that the breech-closer has been placed in the cannon, the plunger is pushed in far enough to throw the blocks D into the recessed portion of said cannon to thereby lock said breech-closer in position, after which it is obvious that an ordinary cartridge ahead of the aforesaid breech-closer may be fired by the concussion of a blow on the rear end of said plunger.

Particular attention is also called to the



fact that a breech-closer having an organization similar to that herein shown may be readily taken apart whether in or out of the cannon, this being a material advantage, if  
5 from any cause said breech-closer becomes stuck in its working position.

While I have shown a cannon for the use of ammunition to be fired by concussion my invention may also apply to breech loading  
10 cannons designed for the use of ammunition that is fired by ignition.

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

15 1. A cannon having a continuous bore enlarged adjacent to its rear end to thereby form a communicating recess, a breech-closer comprising a pair of end disks, intervening blocks and suitable disk-connecting pins that  
20 serve as pivots for the blocks; springs arranged to oppose said blocks, and a suitable plunger for actuating the aforesaid blocks against resistance of the springs to effect an engagement of the breech-closer with said recess in the cannon substantially as set forth.

25 2. A cannon having a continuous bore enlarged adjacent to its rear end to thereby form a communicating recess, a breech-closer comprising a pair of end disks, intervening  
30 blocks and suitable disk-connecting pins that serve as pivots for the blocks; springs ar-

ranged to oppose said blocks, a plunger loose in the disks, and a conical collar on the plunger exertive against said blocks to swing the same on their pivots against resistance of the  
35 springs into engagement with said recess in the cannon, substantially as set forth.

3. A cannon having a continuous bore enlarged adjacent to its rear end to thereby form a communicating recess, a breech-closer  
40 comprising a pair of end disks, the forward one of which is provided with a recessed lip, blocks intermediate of the disks and suitable disk-connecting pins that serve as pivots for the blocks; springs arranged to oppose said  
45 blocks, and a suitable plunger that actuates the aforesaid blocks against resistance of the springs to effect an engagement of the breech-closer with said recess in the cannon, said plunger serving also as a firing-pin for a car-  
50 tridge having its shell-rim engaged with the lip belonging to the forward end-disk of the breech-closer, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in  
55 the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES H. TESCH.

Witnesses:

N. E. OLIPHANT,

H. G. UNDERWOOD.