THOMAS G. BENNETT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION.

BREECH-LOADING GUN.


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To all whom it may concern:

Be it known that I, THOMAS G. BENNETT, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Breech-Loading Guns; and I do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a broken view, partly in side elevation and partly in vertical section, of a breech-loading finger-lever gun constructed in accordance with my invention; Fig. 2, a broken plan view thereof; Fig. 3, a detached view, in rear elevation, of the locking-block.

Figs. 4 and 5 are detached plan views of modified forms which the locking-block may assume; Fig. 6, a broken view, in side elevation, of another form of finger-lever gun provided with my improved locking-block; Fig. 7, a broken plan view thereof; Fig. 8, a detached plan view of the locking-block; Fig. 9, a view thereof in rear elevation; Figs. 10, 11, and 12, detached plan views of modified forms which the block may assume.

My invention relates to an improvement in the locking-blocks of breech-loading guns, the object being to utilize such locking-blocks for tying the opposite side walls of the gun frames or receivers together, so as to prevent them from spreading under pressures developed by firing the guns.

With these ends in view my invention consists in a breech-loading gun having a locking-block located between the opposite side walls of the gun-frame and interlocked therewith, so as to tie the same together when the gun is breeched.

My invention further consists in certain details of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

My invention, as I may here state, is applicable to the construction of substantially all locking-blocks for breech-loading guns, varying, as they do, in details of construction. It seems to me, however, sufficient for the illustration of my invention to show it as embodied in two finger-lever guns.

In carrying out my invention as shown in Figs. 1 to 3 of the drawings the sliding locking-block 2 extends transversely across the rear portion of a chamber 3, formed in the gun-frame 4, each of the side walls of the block being formed with two interlocking ribs 5 and 6, respectively, extending forward and rearward and entering grooves 7, formed for their reception in the side walls 8 of the gun-frame 4. It will be readily understood that any tendency that the side walls might have to be forced apart under the rearward thrust of heavy pressures in the gun-barrel will be resisted by the ribs 5 and 6. At its lower end the locking-block 2 is formed with trunnions 10, by means of which it is connected with a link 11, operated by a finger-lever 12 of well-known construction. When the block is raised, by means of the link 11 and finger-lever 12, its upper end engages with the rear end of the bolt 13 and breeches the same up. At the beginning of the opening of the gun the block is moved downward out of the way before the bolt starts on its rearward movement.

In the modified form shown by Fig. 4 the locking-block 14 is formed on each of its side walls with a single forwardly-extending interlocking rib 15, which takes into corresponding dovetail grooves formed in the side walls of the gun-frame in a manner too obvious to need illustration, whereby the side walls will be tied together and prevented from spreading by the locking-block without interfering with the movement thereof up and down.

In the modified form shown by Fig. 5 of the drawings the locking-block 16 has its end walls shaped to form dovetail ribs 17, which take into corresponding dovetail grooves formed in the opposite side walls of the gun-frame and tie the same together.

In Figs. 6 to 9, inclusive, of the drawings I have shown my improvement as embodied in a breech-loading finger-lever gun of the class in which the locking-block engages with the
breech-bolt at a point forward of the rear end thereof. In this construction the locking-block consists of two corresponding members 18, having their lower ends united by a screw 19, passing through a sleeve 20, interposed between them, the block being connected by the said screw 19 and sleeve 20 with the finger-lever 21, which is formed for the purpose with an inclined slot 22, through which the sleeve and screw pass. The forward and rear edges of the two members 18 of the block are formed with locking-ribs 23, 23' and 24 and 24', the ribs 23 and 23' taking into grooves 25 and 25', formed in the adjacent side walls of the gun-frame 27, and the ribs 24 and 24' taking into grooves 28, formed in the adjacent side faces of the breech-bolt 29. Under this construction the locking-block couples the side walls of the gun-frame to the breech-bolt, which then virtually forms a part of the locking-block for tying the two sides of the gun-frame together.

Breech-loading guns like that shown in Figs. 6 to 9 are too common to need detailed description; but it may be said that after the breech-bolt 29 has reached its fully-closed position it is breeched up and held in that position by the lifting of the locking-block, which is depressed preparatory to the opening of the gun.

In the modified construction shown by Fig. 10 of the drawings the members 30 30 of the block are provided only on their forward edges with locking-ribs 31.

In the modified construction shown by Fig. 11 the two members 32 32 of the block are formed with dovetails 33 33, while in the construction shown by Fig. 12 the two members 34 34 have their forward outer edges formed with locking-ribs 35, which take into the side walls of the receiver, and their inner rear edges formed with locking-ribs 36, which take into the side walls of the bolt.

It is apparent, in view of the foregoing, that locking-blocks constructed in accordance with my invention may be applied to a great variety of breech-loading guns and may assume a great variety of forms. I would therefore have it understood that I do not limit myself to the constructions shown and described, but hold myself at liberty to make such departures therefrom as fairly fall within the spirit and scope of my invention.

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

1. In a breech-loading gun, the combination with the gun-frame thereof, of a locking-block constructed to be interlocked with the opposite side walls of the said gun-frame for tying the same together against spreading under pressures developed by the explosion of a cartridge in the gun.

2. In a breech-loading gun, the combination with the gun-frame and breech-bolt thereof, of a two-part locking-block constructed to be interlocked with the opposite side walls of the said gun-frame and bolt for tying the said side walls of the frame together against spreading under pressure developed by the explosion of the cartridge in the gun.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS G. BENNETT.

Witnesses:

DANIEL H. WEADER,

THOMAS C. JOHNSON.