

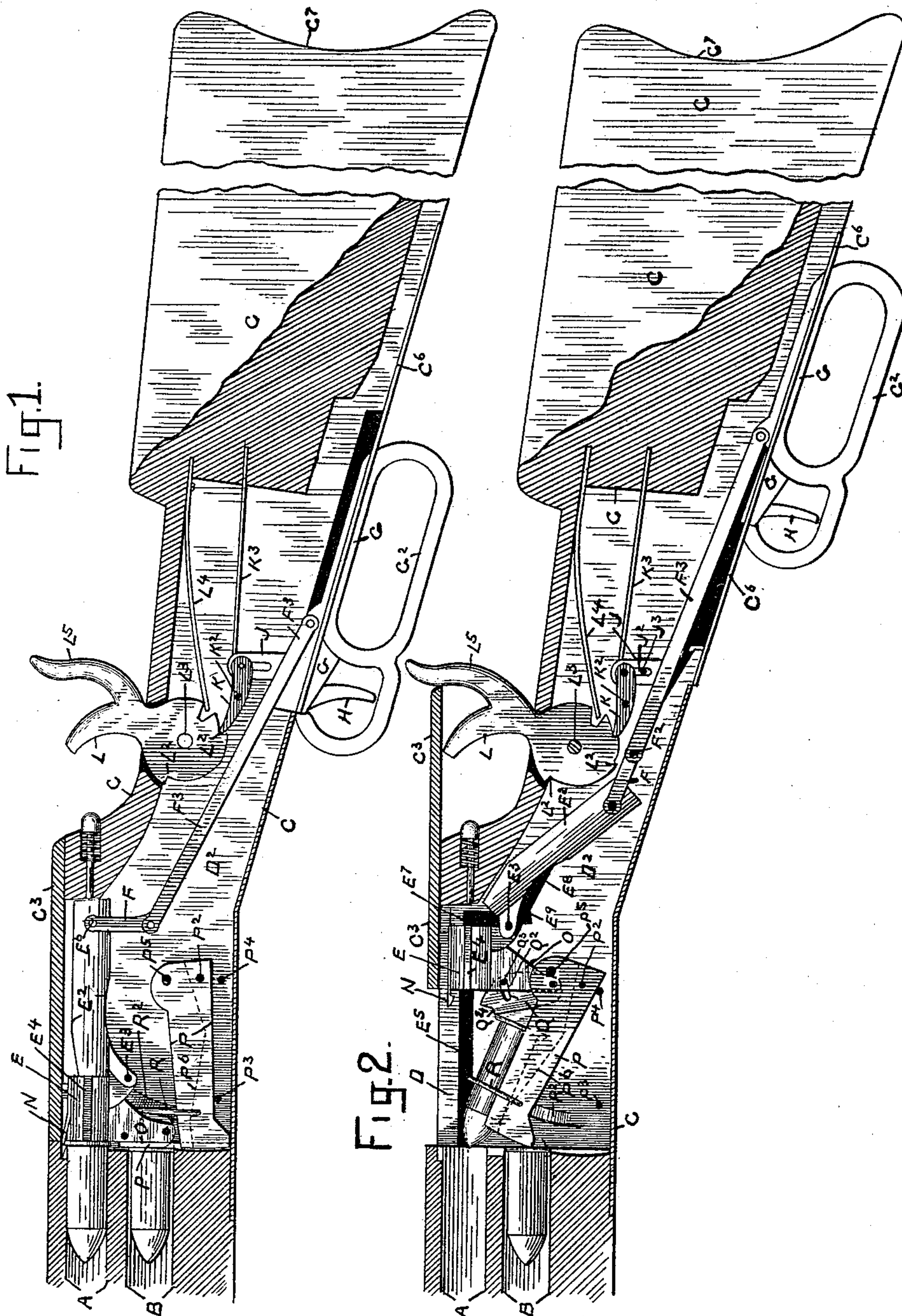
(No Model.)

2 Sheets—Sheet 1.

D. S. WEST.
BREECH LOADING FIREARM.

No. 478,727.

Patented July 12, 1892.



Witnesses.

Marion E. Brown.

Mary H. Storer

Inventor.

Derrick Sumner West
by his Attorneys
Brown Bros.

(No Model.)

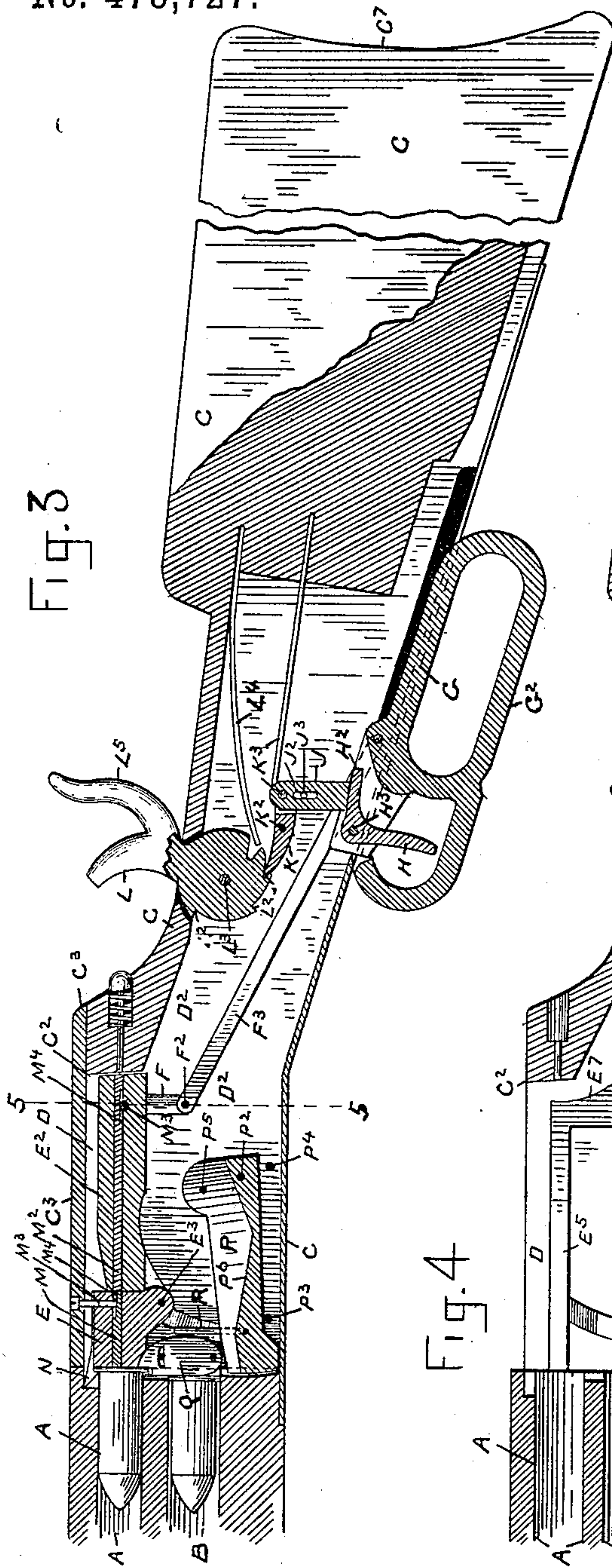
2 Sheets—Sheet 2.

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Fig. 3



With PSEES.

Marion E. Brown
Mary O. Stores

Fig. 4

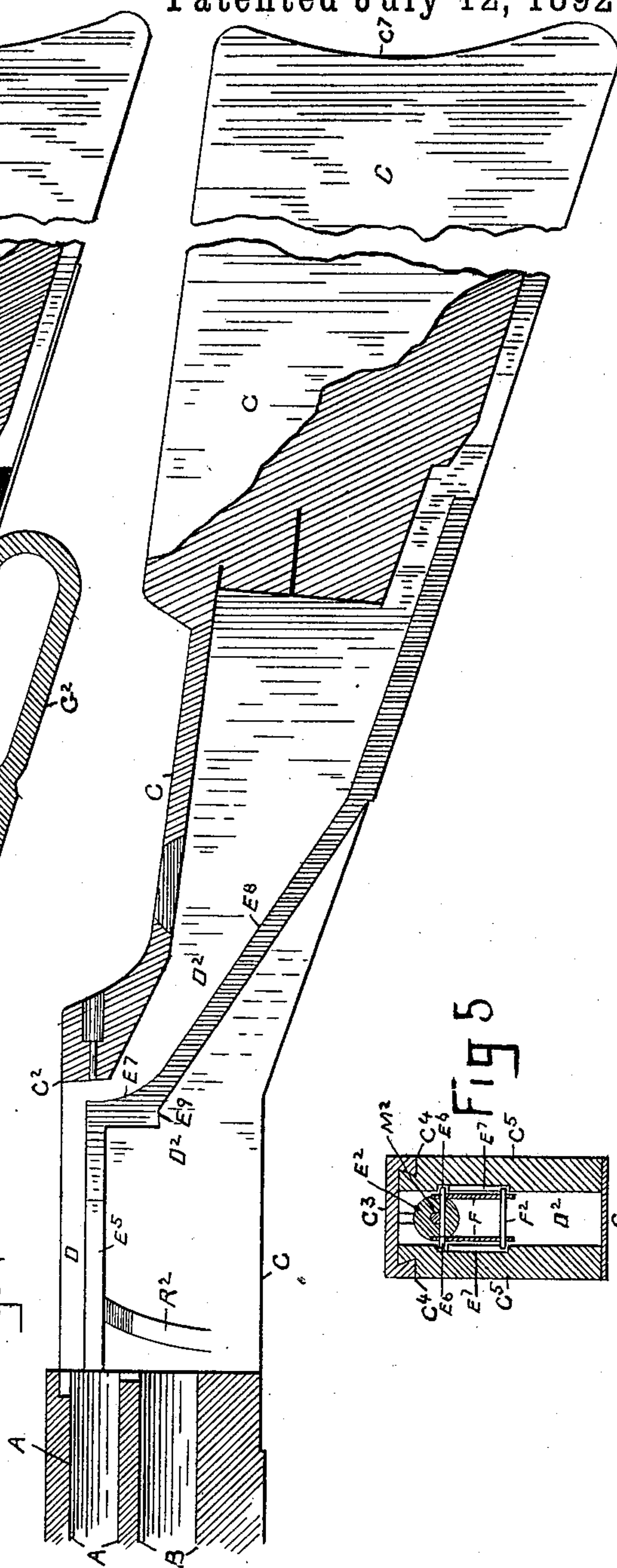
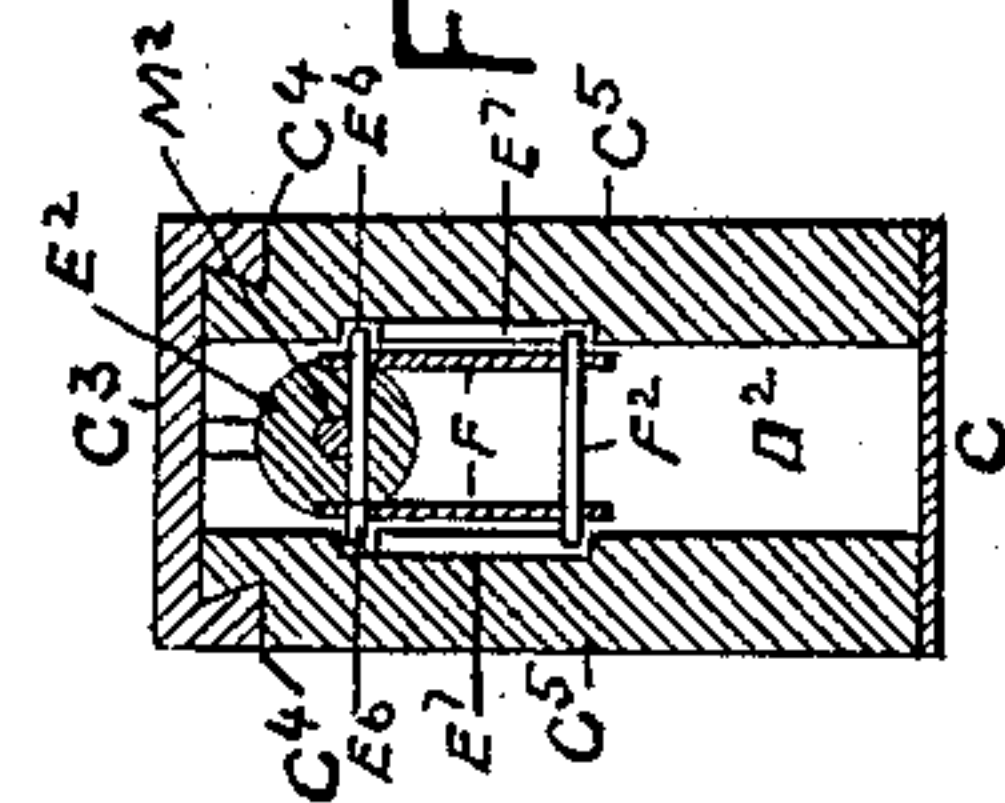


Fig. 5



Inventor.

Derrick Sumner West,
by his Attorneys
Brown Bros.

UNITED STATES PATENT OFFICE.

DERRICK SUMNER WEST, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF THREE-FOURTHS TO JOHN W. DREW, OF SAME PLACE, AND CHARLES H. FISH, OF MANCHESTER, NEW HAMPSHIRE.

BREECH-LOADING FIREARM.

SPECIFICATION forming part of Letters Patent No. 478,727, dated July 12, 1892.

Application filed June 20, 1891. Serial No. 396,965. (No model.)

To all whom it may concern:

Be it known that I, DERRICK SUMNER WEST, a citizen of the United States of America, and a resident of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Firearms, of which the following is a full, clear, and exact description.

This invention relates to breech-loading firearms, and has for its object a gun of the class described that shall be simple of construction, readily manipulated, and strong and reliable in action, all of which is accomplished by the mechanism hereinafter described.

In the drawings forming part of this specification the several improvements of this invention are illustrated in connection with a magazine breech-loading firearm.

Figures 1 and 2 are each similar longitudinal sections on the axial plane of the gun and magazine barrels, but only at their breech, and also the receiver and stock, the latter being shown as transversely separated and in part in side elevation. In both of these views all mechanism of the gun, working or stationary, is shown in side view. Fig. 1 illustrates the mechanism of the gun as prepared to be fired, and Fig. 2 as prepared for the barrel to be charged or loaded with a cartridge. Fig. 3 is a similar view to Figs. 1 and 2, including, however, in the plane of section the mechanism in the position as shown in Fig. 1. Fig. 4 is substantially a longitudinal section of the receiver and stock with the mechanism removed. Fig. 5 is a transverse section in detail, line 5 5, Fig. 3.

In the drawings, A is the gun-barrel. B is the magazine-barrel for cartridges and lying under and lengthwise of the barrel A, and C is the stock, attached to the chamber or receiver D D² in upper and lower communicating portions and held on both barrels A and C at their breech ends, all as well known and forming no part of this invention, except as to said chamber or receiver D D², as hereinafter fully appears.

The upper portion D of the receiver D D²

extends directly rearward from the breech of the barrel A to and terminates at a fixed abutment or wall C² of the receiver. This wall is directly opposite to and in line with the barrel A. The lower portion of the receiver preferably continues rearward of said wall C². The receiver at its upper side is open and is closed by a cover C³, which is adapted to be moved rectilinearly forward and backward on dovetail ways C⁴ at the outer faces of the opposite side walls C⁵ of the receiver D D².

E E² is the breech-block, divided transversely into two sections or parts joined together by a hinge-joint E³, all so that they can be butted end to end, and thereby made continuous with each other, and so that they can be swung, and thereby opened from each other, or, in other words, in the first instance the breech-block straightened and in the second instance the breech-block bent—that is, placed from end to end in an angular or other substantially such like position. The sectional breech-block straightened is practically of a length equal to the upper portion of the receiver D D², and thus placed it fills said portion D from end to end, and it has one and its forward end in position close up to the breech of the barrel, and the other or farther end rests against and in close contact with the wall or abutment C² of the receiver. The sectional breech-block, bent as stated, is then practically of less length than the upper portion D of the receiver, and this length is such and the block lies in such manner relative to said portion D that a sufficient length thereof and directly from the breech of the barrel is open to receive a cartridge and enable it to be inserted therein and its shell afterward withdrawn.

The section E of the breech-block E E² when the block is in the upper portion of the receiver is forward of its section E², and preferably it is the shorter in length. The forward breech-section E on its opposite sides and the opposite inner faces of the opposite side walls C⁵ of the receiver have longitudinal and engaging ribs E⁴ and grooves E⁵ severally extending lengthwise of said breech-

block section and said side walls, and all so that the section being moved rectilinearly forward to and backward from the breech of the barrel will be positively guided, and in this connection it is to be understood that for each of said movements of said forward section the rear section of the block is required to be suitably situated, all substantially as herein-after explained.

10 The rear section E^2 of the breech-block. E E^2 at its farther end portion and on its opposite sides has similar projected lugs E^6 , and the opposite inner faces of the side walls C^5 of the stock C have similar two-part grooves $E^7 E^8$ to receive said lugs. The part E^7 of each groove $E^7 E^8$ leans downward and at right angles and directly off from the rear end of a side groove E^5 of the receiver, and the part E^8 leads directly from the lower end of the part E^7 on a downward rearward incline and into the lower portion D^2 of the receiver $D D^2$, all so that the rear section E^2 of the breech-block can be moved downward from and out of the upper portion D and into and along the lower portion D^2 of the receiver, drawing the forward section E of the breech-block with it and along the upper portion of the receiver and back from the breech of the barrel and bending the breech-block, as stated, and so that it can be moved upward from the lower portion D^2 of and into the upper portion D of the receiver, straightening the breech-block, as stated, and placing it lengthwise along said upper portion D of the receiver and end to end between the breech of the barrel and the abutment-wall C^2 of the receiver. By the first movement of the breech-block the upper portion D of the receiver $D D^2$ is open for a cartridge to be inserted into and after its discharge for the shell to be removed from the barrel, and by the second movement said portion D of the receiver $D D^2$ is filled with the breech-block, and thereby the cartridge in the barrel, and when fired is confined by said block against backward movement because of the then resistance thereto of the rearward abutment-wall C^2 of the receiver, against which rests the rear end of the breech-block.

50 In the combination of breech-block and receiver $D D^2$ and in the relative adaptation of the breech-block and of its receiver for the movements of the block in the receiver, all substantially as explained, the breech-block in both of its positions described and in its movement from one to the other in no part projects from but, on the contrary, is wholly inclosed within the receiver, and in its position between the breech of the barrel and the rear abutment-wall C^2 of the receiver it is practically solid and otherwise such that in co-operation with the rear wall C^2 of the receiver all backward pressure or force exerted against it on firing the cartridge is practically sustained by said wall and not by the breech-block nor by any of its attachments or parts. The advantages and importance of all this

are obvious without particular mention, and, again, while these results are secured, yet the breech-block can be most readily and most conveniently placed in position to open the receiver for the reception of a cartridge and for its insertion into and for the removal of a cartridge-shell from the barrel at its breech.

As particularly shown, the forward section of the breech-block has the ribs E^4 , and the side walls C^5 of the receiver have the grooves E^5 ; but plainly said section may have the grooves E^5 and said walls the ribs E^4 , and if this position of grooves and ribs is used then two-part ribs would be substituted for the two-part grooves $E^7 E^8$ of the receiver $D D^2$ and for the lugs E^6 on the rear section grooves would be substituted. In any case said relative rib or lug, or both said rib and lug and the grooved construction of the sections of the breech-block and of the side walls of the receiver, serves the simple purpose of guides for invariably determining the lines of direction of movement of the two sections of the breech-block, not only as to each other, but as to the receiver, the breech of the barrel, and the abutment-wall C^2 of the receiver, and in such respects they are plainly most efficient and practical.

$F F$ are links on each side of the rear section of the breech-block, and each is at one end jointed to said block, as particularly shown, by the studs or lugs E^6 of said section, and at their opposite ends they are joined by a cross-pin F^2 , held on them, to the forward ends of two parallel rods or links $F^3 F^3$, which at their rear ends are separately jointed to a common plate or block G , that is held on and is at the under side of the receiver and is adapted to be moved lengthwise forward and backward in and for a distance limited by the length of a groove C^6 of the receiver.

The location of the slide-block G , as shown, is back of the breech-block and toward the shoulder-rest C^7 of the stock. The slide-block G , located as stated, plainly is most ready of access and manipulation with the gun in position to be fired. In the combination of links $F F$ and links $F^3 F^3$ as described and shown the connecting cross-pin F^2 is arranged to move along the guide grooves or ways $E^6 E^7$ for the rear section of the breech-block, and if in lieu of these grooves ribs are provided, as has been explained, then for an engagement of said cross-pin F^2 therewith as with the grooves $E^6 E^7$ the cross-pin at each end would be notched to fit the ribs.

The slide-block G has an elongated or loop-shaped handle G^2 therefrom at the under side of the stock. This handle is for convenience to move the slide G forward and backward, as before stated, on the stock.

By the forward movement of the slide G the sectional breech-block $E E^2$ is straightened and placed lengthwise along the upper portion D of the receiver and between the breech of the barrel and the rear abutment-wall C^2 of the receiver, and by the backward move-

ment of the slide G the rear section of the breech-block is moved out of said upper portion into the lower portion of the receiver and its front section along said portion D, all as has been and for the purposes explained.

In the forward movement of the slide G and when the breech-block is straightened, filling the receiver D back of the breech of the barrel, the links F F are vertical and the cross-pin F², jointing them to the pitman-rods or links F³, is at a bearing in the square-sided corner E⁹ at the juncture of the two parts of each of said grooves E⁶ E⁷, and thus for the rear section of breech-block a rest or support is secured against any possible accidental downward movement of the breech-block from its position, holding a cartridge in the barrel, as stated, while at the same time the cross link-pin F² is free to move from said corner when said slide G is moved backward to move the breech-block away from the breech of the barrel, all as has been explained.

At and beyond the forward end of the handle G² of the slide G is the trigger H H². This trigger is of the usual angular form, and it is hung on a fulcrum-pin H³, which is held on the slide G, and its finger portion H projects, as usual, below the under side of the receiver and from the under and outer side of the slide G. The trigger H H² at the inner side of the slide G has its angular portion H² in position when the slide G is in its most forward position and the handle of the trigger is pulled backward, as well known, to bear and press upward against the lower end of a vertical arm J, moving by its vertical guide-slot J² on a fixed pin J³ of the stock, and which at its upper end is pivoted to one end portion of a sear K. This sear K is fulcrumed at K² on the stock, and because of the downward pressure of a bent spring K³ on the said arm J its free end, not pivoted to sear K, is always in contact with and at times engaged with a notch or notches L², axially surrounding one portion of the hammer L, hung on a center-pin L³ of the receiver C and otherwise, as usual. The sear engaged with the hammer L holds the hammer against movement, and disengaged from the hammer the hammer is free for movement, so that then if cocked under the action of its bent spring L⁴ the hammer is thrown forward to discharge the gun, as hereinafter fully appears. Both bent springs K³ L⁴ at their ends opposite to their working ends are fixed on the receiver. As the trigger is on the slide G, obviously moving the slide similarly moves the trigger, so that when the slide is drawn back the trigger is placed out of position to operate on said slotted arm J and sear K, as described, and when the slide is pushed forward the trigger is placed by its angular part H² in position to work against said slotted arm J, as stated, and, thus disengaging the sear K from the notch of the hammer with which it is engaged, release the hammer to fire the cartridge in the barrel, it being of course understood that the hammer

has been cocked. The forward movement of the slide G places the breech-block into the upper portion D of the receiver D D², all as stated, and also the trigger in position that it may be properly operated to disengage the sear K from the hammer for firing the cartridge in the barrel. The backward movement of the slide places the breech-block in position for the removal of the shell of the cartridge, and at the same time places the trigger out of its said operative position. It is well to here observe that when the hammer is set or cocked the sear is engaged with a notch of and holds the hammer cocked, and the trigger is in such a position that when properly pulled it frees the sear from the hammer for it by the action of its spring to fall and discharge the gun. Furthermore, unless the trigger is in position to free the sear, all as explained, the gun cannot be fired, and as the position is only possible when the breech-block is closed against the cartridge in the barrel plainly no firing of the gun can possibly occur unless all parts are properly placed, as has been described.

As shown, the sliding cover C³ of the receiver D D² is held on the forward section of the breech-block, so that when the breech-block is moved backward, as explained, to open the breech by the abutment of its rear end against the handle L⁵ of the hammer an automatic cocking of the hammer is secured. The firing-pin M M² is in sections, which correspond in number to that of the sections into which the breech-block is divided—in the present instance two. The firing-pin of each breech-block section extends from end to end of the section, and the several firing-pin sections when the breech-block is straightened, as explained, are in a corresponding line and practically continuous through the breech-block and, as specially shown, in position for discharging a center-fire cartridge when the pin is suitably forced therefor by the hammer L of the gun, and which, as shown, may act indirectly on the rear end of the firing-pin through a recoiling-pin M⁴, suitably situated in the end wall C² of the receiver or directly on the rear end of the firing-pin, by simply cutting an opening in said wall sufficient to allow the striking end of the hammer to pass forward to and strike against the rear end of the section of the firing-pin located in the rear section of the breech-block. Each firing-pin section M M² has a lengthwise groove M³, engaged by a cross-pin M⁴ of the breech-block, all so that, while each firing-pin is free for its proper length of movement, it is held against escape from its section of the breech-block.

N is a spring-finger lying along and held on the upper side of and projecting by its downward hook end forward of the front face of the front section E of the breech-block. This spring-finger by engaging at its hook end with the rim of the cartridge-shell as the breech-block is drawn back from the breech

end of the barrel withdraws said shell from the barrel, all as well known.

The forward section E of the breech-block on its under side and at its forward end portion has a downward-projected ear-piece or lug O, which with the breech-block straightened stands vertically and centrally across the breech of the magazine-barrel B and moves forward and backward with the breech-block. This lug O when at the breech of the magazine-barrel B holds the cartridge there presented from escaping, assuming, of course, that the magazine-barrel is adapted, as well known, to force said cartridge out at said breech when in the use of the gun it is so desired. This lug as the forward section of the breech-block moves from the breech of the gun-barrel A opens the magazine-barrel for the delivery of the cartridge then presented at its breech end, and the cartridge as it is so delivered enters and finally is placed lengthwise on the upper side of a block or cartridge-carrier P. This cartridge-carrier P lies lengthwise between the side walls C⁵ of the receiver and its forward end is free, and at its rear end it is hung on a center-pin P² of the receiver. The carrier in its normal position—that is, when the breech-block is closed on the breech of the gun-barrel A and its lug Q is across the breech of magazine-barrel B—rests at its front end portion on a cross-pin P³ of the receiver, and the carrier is wholly below the breech of the magazine-barrel and in its open front end is in line with the breech of the magazine to receive a cartridge therefrom. From this position of rest of the cartridge-carrier the carrier, swinging on its center-pin F², can be placed in a position inclining from its front end downward and rearward from the breech of the gun-barrel and yet stand across the breech end of the magazine-barrel, and in the operation of the gun this swing of the carrier is caused on the backward movement of the breech-block by the then abutment of the lug O of said block against a cross-pin P⁵, located at the rear end and above the fulcrum P² of the carrier, and it is limited by a fixed stop-pin P⁴, which is on the receiver and under the carrier.

On the forward movement of the breech-block the cartridge-carrier P is returned to its normal position by the action of the lower end of the lug O of the breech-block against the lengthwise and cam incline P⁶ at the upper part of the cartridge-carrier.

A cartridge on and the cartridge-carrier upwardly inclined, all as stated, presents the cartridge (its ball toward the breech of the barrel) to be, on the forward movement of the breech-block, forced toward and seated in the gun-barrel by the action first of said lug and then of the front section of the breech-block on the rim end of the cartridge. The movements of the cartridge-carrier, in conjunction with those of front section of the breech-block and the lug of said section, all as and in the manner described, are such, relatively

considered, that the cartridges remaining in the magazine-barrel after the delivery of a cartridge therefrom to the carrier and the handling of said cartridge and its insertion into the gun-barrel, as described, are confined against escape.

The lug of the front section of the breech-block carries a cartridge-ejector Q. This ejector consists of a plate which is located in a vertical slit and at its lower end portion is fulcrumed on said lug O of the breech-block, and its upper end portion has a circular running slot Q² and pin Q³ connection with said lug to allow while limiting the swing of the ejector on the lug. Furthermore, the ejector at the corner made by its front and upper edges has a notch O⁴. In the normal position of the ejector the rear edge of the ejector projects beyond the rear side of said lug, and, as shown, its front edge slightly projects beyond the front edge of the lug; but the latter is not necessary.

On the backward movement of the breech-block the rear edge of the ejector Q abuts against the cross-pin P⁵ of the cartridge-carrier, and, thus swinging the ejector, its front edge is projected forward from said lug, and this abutment of the ejector occurs just before the lug itself abuts against said cross-pin. In this forward swing of the ejector its notch Q⁴ engages the rim of the waste cartridge-shell, which has been drawn out of the barrel by the shell-extractor N, held on the breech-block, and throws said shell out at the upper and open side of the receiver D D², after which the ejector, bearing against the rim end of the cartridge lying upon the carrier, on the forward movement of the breech-block is pressed back into its normal position and the lug comes into direct contact with the head of the cartridge on the carrier to then force the cartridge into the gun-barrel, as before explained.

R R are vertical spring-fingers on opposite sides of and attached at their lower ends to the cartridge-carrier. Each finger lies off from the sides of the carrier and is received in a vertical and circular extending groove R² on the contiguous side walls C⁵ of the receiver, so that in the swing of the carrier there is no pressure on them. Each finger projects above the upper side of the cartridge-carrier and over the cartridge thereon, and otherwise each is shaped so as not to interfere either with the placing of a cartridge on or with its removal from the carrier, while protecting the cartridge from accidentally either falling laterally out of line or being forced or jumped out of place.

The operation of the mechanism of the gun in all its parts, as herein fully described, and shown in the drawings, briefly stated, is as follows:

To load the gun, draw the slide backward and then push it forward. The backward movement of the slide moves the breech-block backward, opens the receiver, cocks the hammer,

extracts the waste shell, if any, from the gun-barrel, prepares the cartridge-carrier with and presents a cartridge to the barrel, and ejects the waste shell, if any, extracted from the gun. The forward movement of the slide moves the breech-block forward, places the cartridge on the cartridge-carrier in the barrel, returns said carrier to its normal position, closes the breech-block against the barrel, and places the trigger in position to release the hammer when desired to discharge the gun.

From the description it is obvious the mechanism is simple and can be produced at small cost and acts positively and effectively and is not liable to be disarranged or otherwise placed out of working condition. Again, the gun can be loaded and fired rapidly and with no liability of accidental discharge, all important for producing a practical and useful gun.

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

1. In a breech-loading firearm having a receiver in upper and lower communicating portions, and the upper in direct rearward extension from the breech of the barrel and terminating at a fixed wall of the receiver and the lower below and extending rearward of said upper portion, the combination of a breech-block located in and of the same length as said upper portion of said receiver and divided transversely into sections hinged and adapted to be butted end to end and placed at an angle to each other and butted to fill and at an angle to open said upper portion of the receiver and in both positions to lie wholly within the receiver, and means connected to said breech-block and arranged and contained within and adapted to be operated at the outside of the receiver and to move said breech-block into and out of its said positions, substantially as described, for the purposes specified.

2. In a breech-loading firearm having a receiver in upper and lower communicating portions, and the upper in direct rearward extension from the breech of the barrel and terminating at a fixed wall of the receiver and the lower below and extending rearward of said upper portion, the combination of a breech-block located in and of the same length as said upper portion of said receiver and divided transversely into sections hinged and adapted to be butted end to end and to be placed at an angle to each other and butted to fill and at an angle to open said upper portion of the receiver and in both positions to lie wholly within the receiver, means connected to said breech-block and arranged and contained within and adapted to be operated at the outside of the receiver and to move said breech-block into and out of its said positions, and a slide located and adapted to be moved forward and backward on the outer and under sides of the receiver and connected to said operating means for the breech-block,

substantially as described, for the purposes specified.

3. In a breech-loading firearm, a breech-block located in its receiver and adapted to open and close the breech of the barrel, means adapted to operate, as stated, said breech-block, and a magazine-barrel under and lengthwise of the gun-barrel and adapted at its open breech to discharge cartridges from it into the receiver one after another, the combination of a cartridge-carrier below and in line with the breech-block and at its rear end fulcrumed on the receiver to be swung to place it either in line with or across the magazine-barrel, a vertical abutment-face at the rear end portion and above the fulcrum of said cartridge-carrier, and a dependent lug held on and moving with the said breech-block and adapted, normally, to stand across the breech of the magazine-barrel and on the backward movement of the breech-block to contact with said abutment-face of and thereby to swing the cartridge-carrier upward, substantially as described, for the purposes specified.

4. In a breech-loading firearm, a breech-block located in its receiver and adapted to open and close the breech of the barrel, means adapted to operate said breech-block, as stated, and a magazine-barrel under and lengthwise of the gun-barrel and adapted at its open breech to discharge cartridges from it into the receiver one after another, the combination of a cartridge-carrier below and in line with the breech-block and at its rear end fulcrumed on the receiver to be swung to place it either in line with or across the magazine-barrel, a vertical abutment-face at the rear end portion and above the fulcrum of said cartridge-carrier, a dependent lug held on and moving with the said breech-block and adapted, normally, to stand across the breech of the magazine-barrel and on the backward movement of the breech-block to contact with said abutment-face of and thereby to swing the cartridge-carrier upward, and a cartridge-ejector held and adapted for a limited swing in a vertical plane on said lug and adapted at its forward edge to contact with rim of cartridge-shell and at its rearward edge to contact with said abutment-face of the cartridge-carrier, substantially as described, for the purposes specified.

5. In a breech-loading firearm having a receiver in upper and lower communicating portions, and the upper in direct rearward extension from the breech of the barrel and terminating at a fixed wall of the receiver and the lower below and extending rearward of said upper portion, the combination of a breech-block located in and of the same length as said upper portion of said receiver and divided transversely into sections hinged and adapted to be butted end to end and placed at an angle to each other and butted to fill and at an angle to open said upper portion of the receiver and in both positions to lie wholly within the receiver, means consisting of links

jointed end to end and one to said breech-block, a slide located and adapted to be moved forward and backward on the outer and undersides of the receiver and having one of said links jointed to it, and means held on said receiver and said links and adapted, relatively, to serve as guides to the movement of said links by the movement of said slide, substantially as described, for the purposes specified.

6. In a breech-loading firearm having a receiver in upper and lower communicating portions, and the upper in direct rearward extension from the breech of the barrel and terminating at a fixed wall of the receiver and the lower below and extending rearward of said upper portion, the combination of a breech-block located in and of the same length as said upper portion of said receiver and divided transversely into sections hinged and adapted to be butted end to end and placed at an angle to each other and butted to fill and at an angle to open said upper portion of the receiver and in both positions to lie wholly within the receiver, means consisting of links jointed end to end and one to said breech-block, a slide located and adapted to be moved forward and backward on the outer and undersides of the receiver and having one of said links jointed to it, and means held on said receiver and said links and adapted, relatively, to serve as guides to the movement of said links by the movement of said slide and as a rest or support for the links connected to the breech-block, substantially as described, for the purposes specified.

7. In a firearm, in combination, a hammer L, a fulcrumed sear K, adapted to hold and release the hammer, a fulcrumed angular trigger H H², and a vertical limited sliding arm J, having said sear pivoted on it and adapted to be acted on by the arm H² of said trigger, substantially as described, for the purpose specified.

8. In a breech-loading firearm, a barrel, a receiver and stock, an abutment in the receiver to the rear of and in line with the barrel, and a breech-block resting, when in closed position, with one end against the abutment in the receiver and the other closing the breech of the barrel, said breech-block being divided transversely into fore and rear sections hinged together, and means for withdrawing both sections of the breech-block rearwardly within the receiver, substantially as described.

9. In a breech-loading firearm, a barrel, a receiver and stock, an abutment in the receiver to the rear of and in line with the barrel, and a breech-block resting, when in closed position, with one end against the abutment in the receiver and the other closing the breech of the barrel, said breech-block being

divided transversely into fore and rear sections hinged together, a firing-pin extending through and divided into sections corresponding to the breech-block, a pin through said abutment in the receiver in alignment with said firing-pin, and a hammer pivoted in the rear thereof, substantially as described.

10. In a breech-loading firearm, a barrel, receiver and stock, an abutment in the receiver in line with and to the rear of the barrel, a breech-block normally resting with one end closing the breech of the barrel and the other against said abutment, said breech-block being transversely divided into front and rear sections hinged to each other, a sliding handle on the under side of the receiver, and a link connecting said handle to the rear of the breech-block, substantially as described.

11. In a breech-loading firearm, a barrel and stock, a receiver having grooves in its inner faces, extending horizontally from the breech of the barrel to a point near an abutment in the receiver, then vertically downward for a short distance, and again obliquely downward and rearward, a breech-block normally resting with one end closing the breech of the barrel and the other against said abutment, said breech-block being divided into fore and rear sections hinged to each other, pins on each section of the breech-block, resting in the grooves in the receiver, and means for withdrawing the breech-block rearwardly within the receiver, all substantially as shown and described.

12. In a breech-loading firearm, a barrel and stock, a receiver having grooves in its inner faces, extending horizontally from the breech of the barrel to a point near an abutment in the receiver, then vertically downward for a short distance, and again obliquely downward and rearward, a breech-block normally resting with one end closing the breech of the barrel and the other against said abutment, said breech-block being divided into fore and rear sections hinged to each other, pins on each section of the breech-block, resting in the grooves in the receiver, a link pivotally connected to the rear section of the breech-block, a rod pivoted to said link by a pin whose protruding ends rest, when the breech is closed, upon a shoulder at the base of the vertical part of the grooves in the receiver, and a sliding handle on the under side of the receiver, pivoted to said rod, all as shown and described.

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

DERRICK SUMNER WEST.

Witnesses:

ALBERT W. BROWN,
MARY W. STORER.