

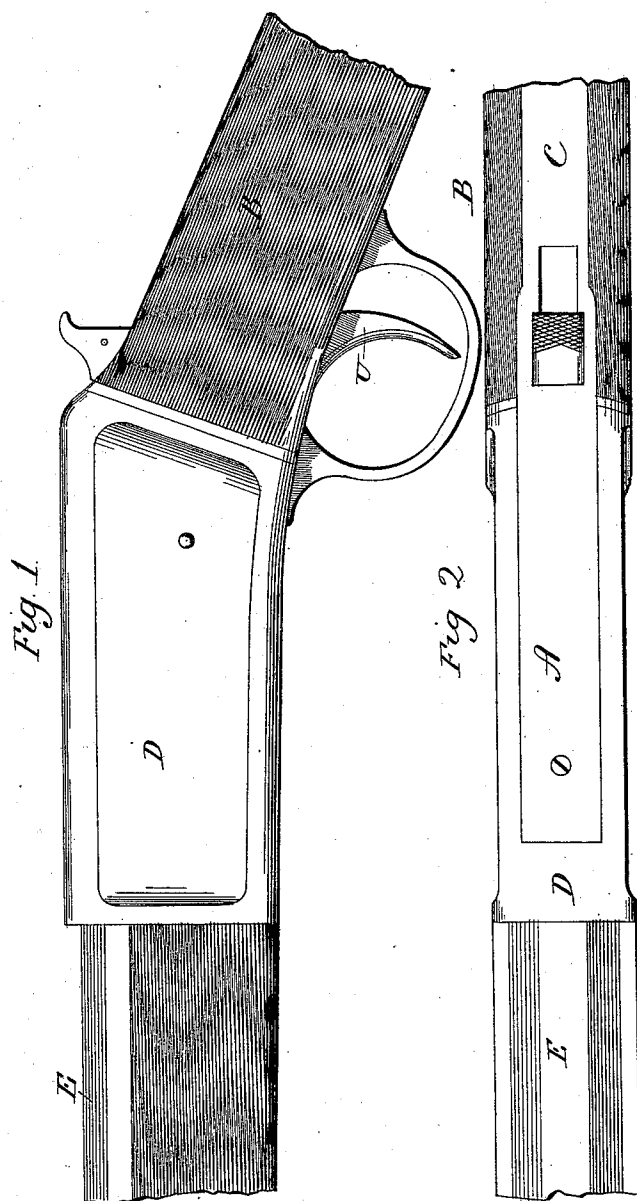
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4 Sheets—Sheet 1.

J. M. & M. S. BROWNING.
MAGAZINE FIRE ARM.

No. 465,340.

Patented Dec. 15, 1891.



Witnesses.
J. H. Shumway.
William D. Kellogg.

John M. Browning
Matthew S. Browning.
Inventors
By attys.
Carle Heymon

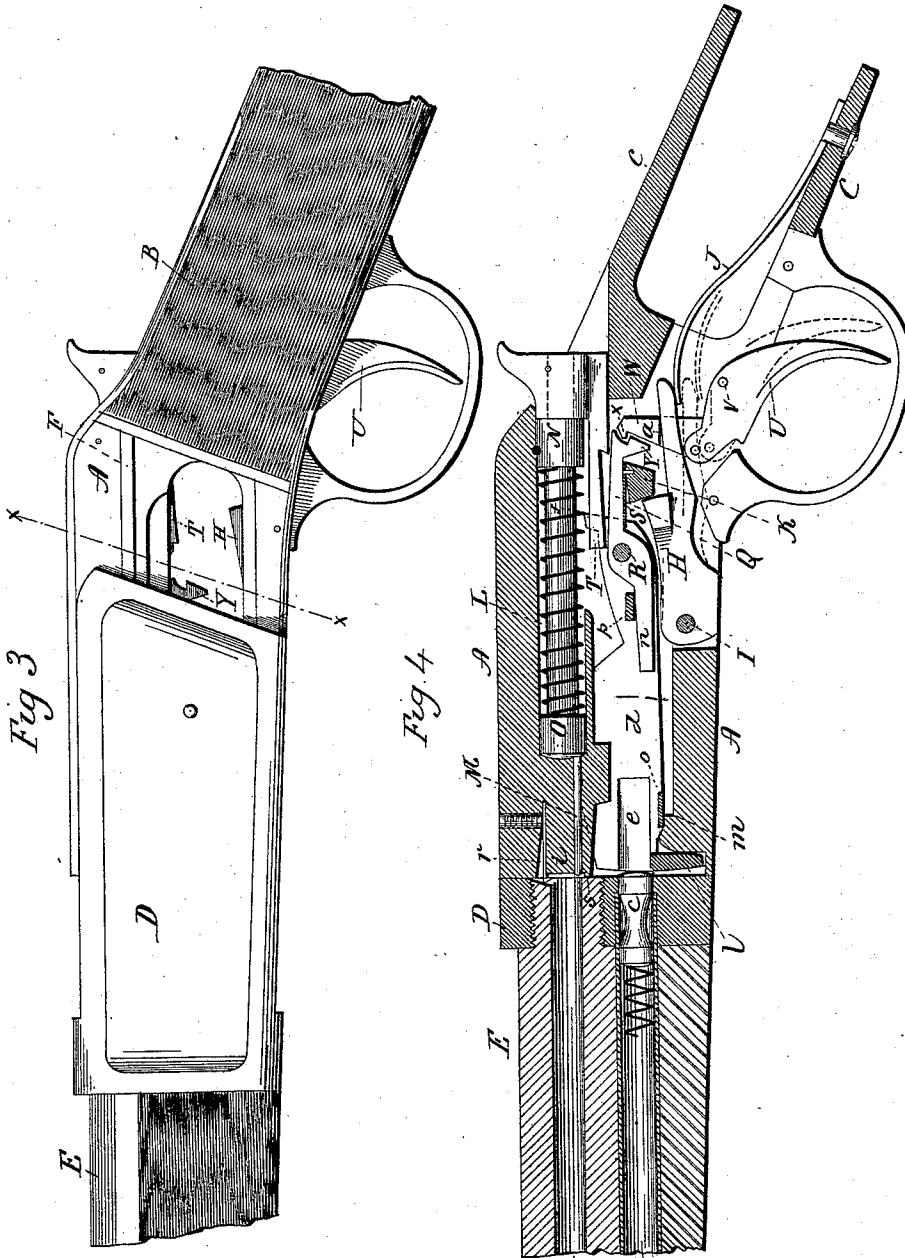
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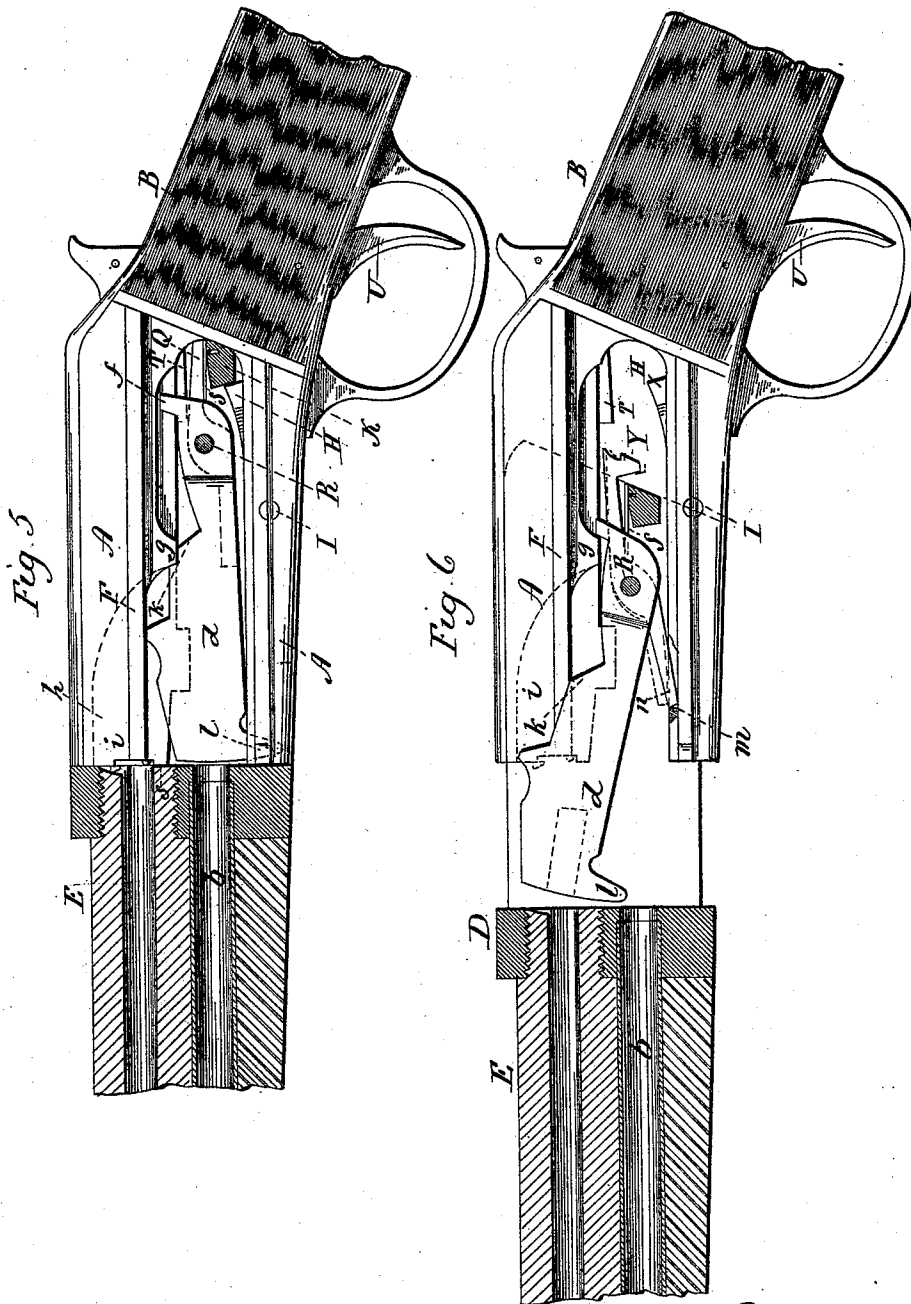
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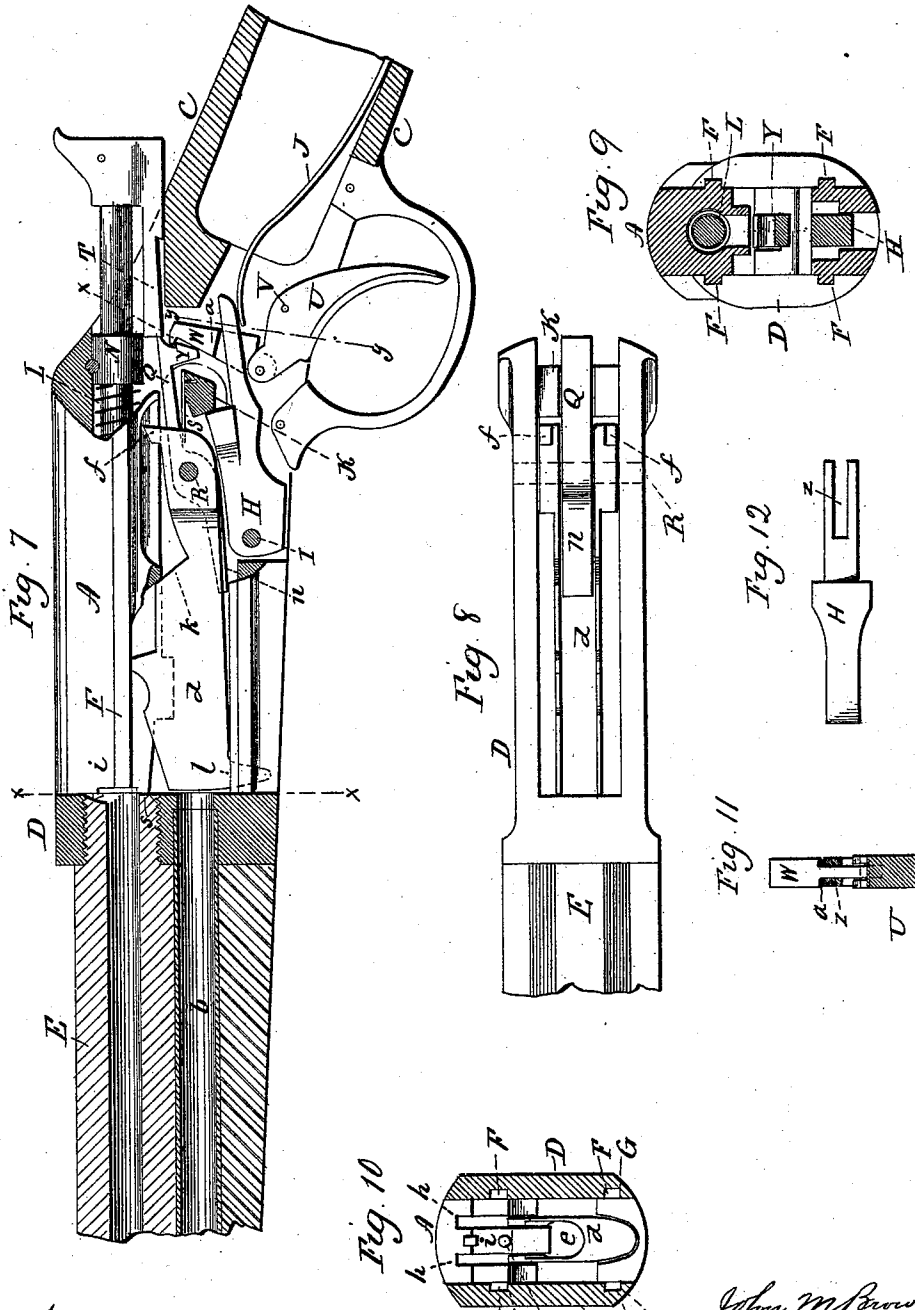
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UNITED STATES PATENT OFFICE.

JOHN M. BROWNING AND MATTHEW S. BROWNING, OF OGDEN, UTAH TERRITORY, ASSIGNORS TO THE WINCHESTER REPEATING ARMS COMPANY, OF NEW HAVEN, CONNECTICUT.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 465,340, dated December 15, 1891.

Application filed August 3, 1891. Serial No. 401,574. (No model.)

To all whom it may concern:

Be it known that we, JOHN M. BROWNING and MATTHEW S. BROWNING, of Ogden, in the county of Weber and Territory of Utah, have
5 invented a new Improvement in Magazine Fire-Arms; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear,
10 and exact description of the same, which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the gun complete and in the closed position; Fig. 2, a top view of
15 the same; Fig. 3, a side view of the gun, showing the receiver in the open position; Fig. 4, a longitudinal central section showing the mechanism of the arm in side view, the parts being in the closed position; Fig. 5, a longitudinal
20 central section of the forward part of the receiver, barrel, and magazine, showing side view of the rear portion of the arm, the parts in the closed position; Fig. 6, the same as Fig. 5, but representing the parts in the open position; Fig. 7, the same as Fig. 6, showing the
25 parts after they have been reclosed, leaving the hammer at full-cock; Fig. 8, a top view of the forward part of the receiver, the rear part withdrawn; Fig. 9, a section on line *xx* of
30 Fig. 3, looking forward; Fig. 10, a section on line *xx* of Fig. 7, looking rearward; Fig. 11, a section on line *yy* of Fig. 7, looking forward; Fig. 12, a top view of the latch H.

This invention relates to an improvement
35 in that class of fire-arms in which the receiver is constructed in two parts, the rear part attached to the stock and the forward part carrying the barrel attached at its forward end, the two parts arranged to slide one upon the
40 other, so that holding the stock in one hand and grasping the barrel with the other hand the two parts may be separated to open the breech for the introduction of the charge into the barrel, and then returned to close the breech.

45 While the invention is specially adapted to magazine-guns, parts of the invention may be advantageously employed in single-loaders.

The object of the invention is a simple construction, and whereby as a magazine-arm
50 rapid firing may be produced without remov-

ing the gun from the shoulder; and the invention consists in the construction, as hereinafter described, and particularly recited in the claims.

A represents the rear part of the receiver, 55 which is secured to the stock B by means of tongues C C, as usual, for the attachment of the receiver to the stock.

D represents the forward part of the receiver, to which the barrel E is attached in 60 the usual manner. The part D of the receiver is constructed with a vertical slot opening through it from top to bottom and also opening at the rear end. The part A is constructed in shape corresponding to the depth and 65 width of said slot in the part D and with shoulders near its rear end, against which the corresponding ends of the part D at each side the said slot will come to a bearing when the parts are in the closed position, as seen in 70 Fig. 1, and so that in that position the receiver will appear substantially the same as other receivers when made in a single piece, the part A being adapted to slide longitudinally within the part D. The one part is con- 75 structed with longitudinal grooves and the other with corresponding longitudinal ribs as guides to support the two parts in their proper relative position to each other, and yet permit the parts to slide freely longitudinally backward and forward. These parts 80 are shown in Fig. 9, and, as there represented, the part A is constructed with longitudinal ribs F F on each side and the part D with corresponding grooves G, and so that grasping 85 the stock with one hand and holding it against the shoulder the other hand may be applied to the barrel, and a forward and back movement imparted to the barrel will move the barrel and the forward part of the re- 90 ceiver forward, while the rear part of the receiver is held stationary with the stock. The barrel opens into the receiver at the rear in the usual manner, and so that as the barrel and the forward part of the receiver are moved 95 forward, as before described, the rear end of the barrel will be opened, as seen in Figs. 3 and 6, for the introduction of the cartridge or the removal of the exploded shell, or cartridge, if it be not exploded, and then as the 100

barrel with the forward part of the receiver are returned the breech will be closed, as seen in Fig. 4.

The part A of the receiver is constructed so as to abut against the rear end of the barrel when in a closed position, as seen in Fig. 4, so as to support the cartridge and resist explosion in like manner as does the longitudinally-reciprocating breech-piece in the usual construction of arms *i*, representing that part of A which forms the breech-piece. In the one part a spring-latch is provided, which will interlock with the other part when the two parts are in the closed position, and so as to securely hold the parts together that the explosion of the cartridge may not separate the two.

As here represented, the interlocking of the two parts is made by a spring-latch H, hung in the lower side of the part A upon a pivot I, and so as to swing in a vertical plane. The latch extending rearward is provided with a spring J, the tendency of which is to force the latch upward.

In the part D of the receiver a shoulder K is formed, (see Figs. 4 and 7,) against which the nose of the latch H will rise and stand when the parts are in the closed position, thus preventing the possibility of the separation of the two parts so long as the latch H shall remain in engagement with the shoulder K. The spring J operates so as to bring the latch into its locking position so soon as the parts are brought to the closed position, and the latch is yieldingly held in that position by this spring.

In the part A of the receiver the hammer L is arranged longitudinally through it, it extending forward, so as to strike the head of the cartridge. As here represented, the forward end M of the firing-pin is arranged to strike the rim of the cartridge, the construction shown being adapted to rim-fire cartridges; but it will be understood that the point of the firing-pin will be arranged according to the point of the cartridge which is to be struck. A suitable mainspring is provided for the hammer, here represented as a spiral spring within the part A around the hammer, adapted to bear against the shoulder N on the part A, the other end of the spring bearing forward against a corresponding shoulder O on the hammer, and as usual in similar hammers in other constructions of arms.

In the forward part D of the receiver and in a position below the hammer the sear Q is hung upon a pivot R and so as to swing in a vertical plane. The sear therefore moves backward and forward with the forward part D of the receiver. The sear extends rearward over the shoulder K and is provided with a spring S, the tendency of which is to force the sear upward, so that its nose may engage the notch T on the hammer when the hammer is brought to the cocked position, as seen in Fig. 7. The trigger U is hung in the

part A of the receiver upon a pivot V, and forward of the pivot a dog W is hung to the trigger, the dog extending upward, and so that a pull upon the trigger will draw the dog downward. The nose X of the dog is adapted to engage a corresponding shoulder Y on the sear when the sear has engaged the hammer in the cocked position and as seen in Fig. 7, and so that a pull upon the trigger will impart a downward pull upon the sear to disengage the hammer to permit it to fly forward and impart its blow to the cartridge. The tail of the latch H is constructed with a longitudinal slot Z, (see Fig. 12,) and the trigger is arranged to work through this slot, as seen in Fig. 11, the trigger being constructed with a shoulder *a* above the tail of the latch, and so that after the trigger shall have been pulled so far as to take the sear from engagement with the hammer the shoulder *a* will then come to a bearing on the tail, and so that a further pull upon the trigger will draw the latch down out of engagement with the shoulder K, as seen in broken lines, Fig. 4, and so that the trigger being held in this position the barrel with its part of the receiver may be drawn forward, as represented in Figs. 3 and 6, for the introduction of a cartridge, and then the barrel with its part of the receiver being returned and the trigger left free the latch will swing into engagement with the shoulder K, and so as to hold the parts in the closed position. In the opening movement the sear passes forward of the cocking-shoulder T of the hammer, as seen in Fig. 6, the sear-spring throwing the sear upward, and so that as the parts are again brought to the closed position the sear will strike the shoulder T, force the hammer rearward into the cocked position, as seen in Fig. 7, and thus hold the hammer fully cocked when the parts are brought to the closed position, and so that a pull upon the trigger, as before, will first release the hammer, permitting it to impart its blow, and then a continued pull of the trigger will release the two parts for their separation, as before, to open the breech for recharging and the hammer recocked as the parts are again brought to their closed position.

Forward of the barrel and beneath the receiver the magazine *b* is arranged, opening into the receiver at the rear, as usual in this arrangement of magazines, the magazine being provided with a spring and follower *c*, as usual, so that the column of cartridges in the magazine will be forced rearward and successively delivered into the receiver at the rear, the magazine moving with the barrel and the forward part D of the receiver.

In the forward part D of the receiver the carrier *d* is arranged, preferably hung upon the same pivot R as the sear, and so as to swing in a vertical plane. The carrier at its forward end is of U shape, the lower portion *e* of the recess in the carrier (see Fig. 10) undercut, or of somewhat larger diameter than

the width between the two sides above this undercut portion *e*. In the down position this part *e* of the carrier stands in line with the magazine, as seen in Fig. 4, and so that said part *e* forms a chamber, into which a cartridge may be forced from the magazine when the parts stand in the closed position, as seen in Fig. 4. The carrier, being hung in the forward part D of the receiver, moves forward and backward with it in the opening and closing movement. The carrier is constructed with an upward projection *f* in rear of its pivot R, and which projection in the opening movement engages a corresponding shoulder *g* on the part A of the receiver, as seen in Fig. 6, and so that after such engagement, and in the completion of the forward movement of the part D of the receiver, the carrier will be thrown up into the raised position, as seen in Fig. 6, and so as to bring the cartridge-chamber of the carrier substantially into line with the barrel, and so that as the parts are again brought to the closed position the forward end of the part A of the receiver will pass through the carrier, strike the rear end of the cartridge, and force it into the barrel. The upper sides of the carrier are adapted to pass up into corresponding grooves *h h* in the part A and each side of the face *i*, which practically forms the breech-piece. (See Fig. 10.) These grooves are represented in broken lines, Figs. 5 and 6. As the parts approach their closed position, the rear end of the grooves *h* will strike a corresponding shoulder *k* on the carrier, and as the parts complete their closing movement will cause the carrier to return to its down position, as seen in Fig. 5, ready to receive a second cartridge from the magazine.

When the parts are separated, as seen in Fig. 6, the carrier is in the up position and the rear end of the magazine is exposed, so that it may be charged through the under side of the receiver, a downward projection *l* on the carrier forming a stop against which the heads of the cartridges will bear, so as to prevent the escape of the column of cartridges. This stop *l* passes below the opening in the magazine when the carrier is in the down position, so that the cartridges may pass freely into the magazine; but as the carrier rises it covers the rear end of the magazine sufficient to prevent the escape of cartridges from the magazine.

To prevent the accidental separation of the two parts the part A is constructed with a shoulder *m*, which stands in the path of a tail *n*, formed on the sear, and so that as the parts reach the open position the tail *m* of the sear will strike the said shoulder, as seen in Fig. 6. If it is desired to entirely separate the parts—that is, so that one may be drawn entirely away from the other—the rear end of the sear is exposed in rear of the part D of the receiver, as seen in Fig. 3, and by pressing the rear end of the sear down with the

finger the tail will be raised, as indicated in broken lines, Fig. 6, so as to disconnect it from the shoulder *n*. Then the part D may be drawn forward from the part A, so as to completely separate the two parts.

In Fig. 4, *o p* represent two transverse connections between the two sides of the carrier, which are employed simply as a connection between the two sides.

The part A is provided with an extractor-hook *r*, arranged in relation to the breech-piece portion *i* of the part A, as usual in breech-loading fire-arms, and opposite the extractor-hook is a corresponding shoulder *s* to support the opposite edge of the head of the cartridge, so that the withdrawal of the shell may be insured and the shell held until the open position is reached, when the rising carrier will operate as an ejector for the shell, as usual in magazine fire-arms.

We claim—

1. In a fire-arm in which the receiver is made in two parts arranged to slide longitudinally the one upon the other, the rear part made fast to the stock and the forward part having a barrel attached thereto opening into the receiver at the rear, the combination therewith of a hammer arranged in the rear part of the receiver, a sear hung in the forward part of the receiver and so as to move longitudinally therewith, the sear arranged to swing in a vertical plane and adapted to engage a shoulder on the hammer as the parts are brought to the closed position and whereby the hammer is cocked, a trigger hung in the rear part of the receiver, and a dog hung to the trigger forward of its pivot and adapted to engage the nose of the sear, whereby the pull of the trigger will disengage the sear from the hammer, substantially as described.

2. In a fire-arm in which the receiver is made in two parts arranged to slide longitudinally the one upon the other, the rear part attached to the stock and the other part carrying the barrel at its forward end, the barrel opening into the receiver at the rear, the combination therewith of a spring-latch hung in the rear part of the receiver, the forward part of the receiver constructed with a shoulder with which the said latch is adapted to engage when the parts are in the closed position, a trigger hung in the rear part of the receiver, a dog hung to said trigger forward of its pivot, and a sear adapted to engage the hammer in the full-cock position, the said dog arranged to engage said sear and detach it from the hammer upon the pull of the trigger and the said dog constructed with a shoulder arranged to engage the said latch after the sear has been so disengaged, substantially as described, whereby upon the pull of the trigger the hammer is first released and then the latch drawn out of engagement between the two parts.

3. In a fire-arm in which the receiver is

constructed in two parts, the rear part attached to the stock and the forward part carrying the barrel opening into the receiver at the rear, the said parts being adapted to slide longitudinally the one upon the other, a spring-latch hung in the rear part, the forward part constructed with a corresponding shoulder with which said latch may engage when the parts are in the closed position, a trigger hung in the said rear part, and a connection, substantially such as described, between said trigger and said latch, whereby the pull upon the trigger will disengage the latch from said shoulder so as to permit the opening movement of the receiver, substantially as described.

4. In a fire-arm in which the receiver is constructed in two parts, the rear part attached to the stock, the forward part carrying the barrel, the two parts arranged to slide longitudinally the one upon the other, the combination therewith of a hammer arranged in the rear part of the receiver, a sear hung in the forward part of the receiver and so as to move therewith, the sear being adapted to engage the hammer as the parts are brought to the closed position and take the hammer to full-cock, the sear constructed with a tail extending forward of its pivot, and the rear part of the receiver constructed with a corresponding shoulder with which the said tail is adapted to engage when the parts are in their open position, substantially as described, and whereby the accidental separation of the parts of the receiver is prevented.

5. In a fire-arm in which the receiver is constructed in two parts, the one part attached to the stock and the other part carrying the barrel at its forward end, the barrel opening into the receiver at the rear and the two parts adapted to slide longitudinally the one upon the other, a magazine arranged beneath the barrel and opening into the receiver at the rear, the combination therewith of a carrier hung in the forward part of the receiver and so as to swing in a vertical plane, the rear part constructed with shoulders adapted to engage the carrier both in the opening and closing movement and so as to impart the up-and-down movement to the carrier, and the carrier constructed with a down-

ward projection at its forward end, adapted to cover the mouth of the magazine when the carrier is raised, substantially as described.

6. In a fire-arm in which the receiver is made in two parts, the rear part attached to the stock, the forward part carrying the barrel opening into the receiver at the rear, the two parts arranged to slide longitudinally the one upon the other, the combination therewith of a magazine beneath the barrel opening into the receiver at the rear, the rear part constructed to form a breech-piece, so as to close the rear end of the barrel, a carrier hung in the forward part of the receiver below the breech-piece portion of the said rear part and so as to swing in a vertical plane, the carrier of U shape at its forward end and undercut to form a cartridge-chamber opening upward, the breech-piece portion of the said rear part constructed with grooves into which the sides of the carrier may stand when in the up position and so that in the closing movement the breech-piece portion will pass through said carrier, and the breech-piece and carrier constructed with corresponding shoulders, substantially as described, whereby the opening and closing movement will produce the corresponding up-and-down movement of the carrier.

7. In a fire-arm in which the receiver is made in two parts, the rear part attached to the stock, the forward part carrying the barrel opening into the receiver at the rear, the forward part constructed with a longitudinal slot opening vertically to the top and the bottom and also open at the rear end, the rear part constructed of a shape corresponding to the said slot in the forward part and so as to slide longitudinally therein, and the one part constructed with longitudinal grooves and the other part with corresponding longitudinal ribs as guides for the longitudinal movement of the said parts, substantially as described.

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

JOHN M. BROWNING.

MATTHEW S. BROWNING.

Witnesses:

W. G. WRIGHT,

E. A. ENSIGN.