March 30, 1926.

1,578,639

J. M. BROWNING

FIREARM

Filed Sept. 29, 1924

4 Sheets-Sheet 1

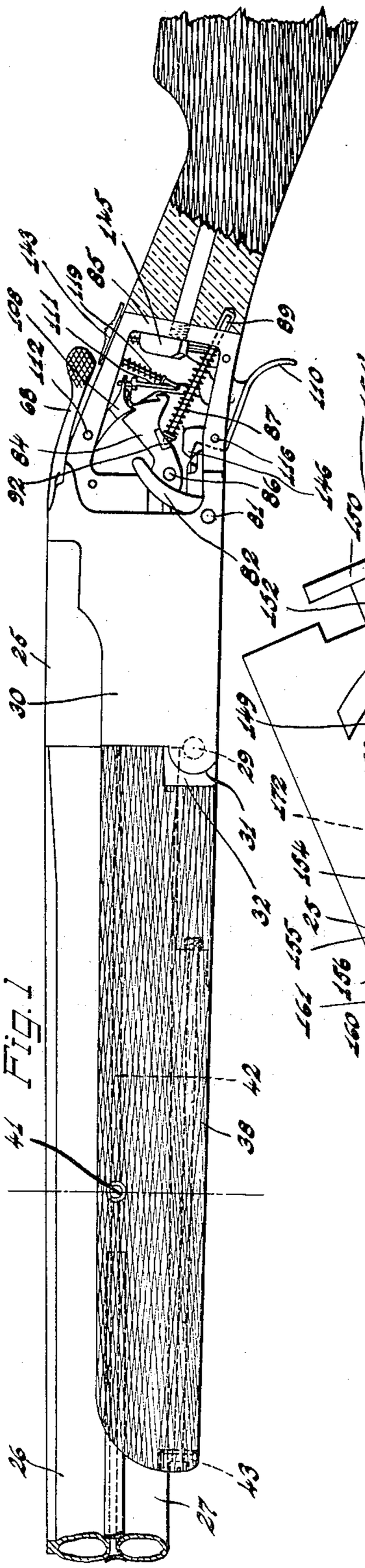

Fig. 1

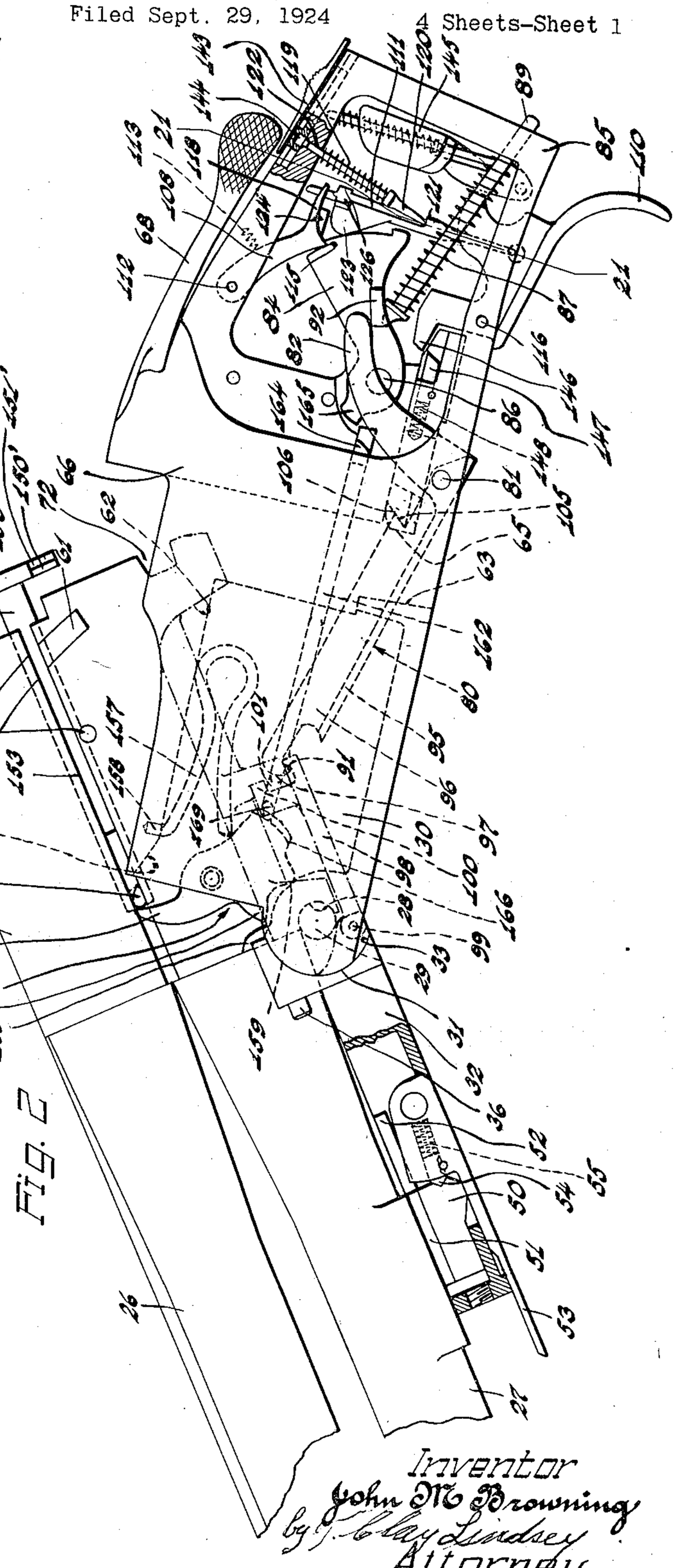

Fig. 2

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FIREARM

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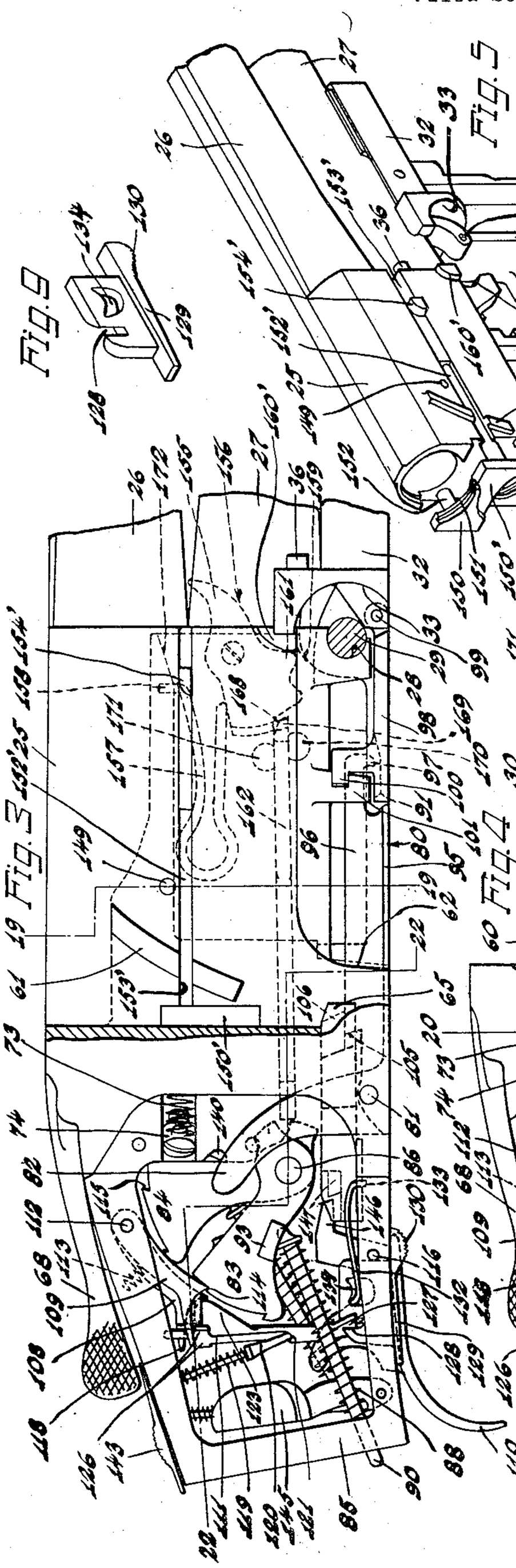

Fig. 5

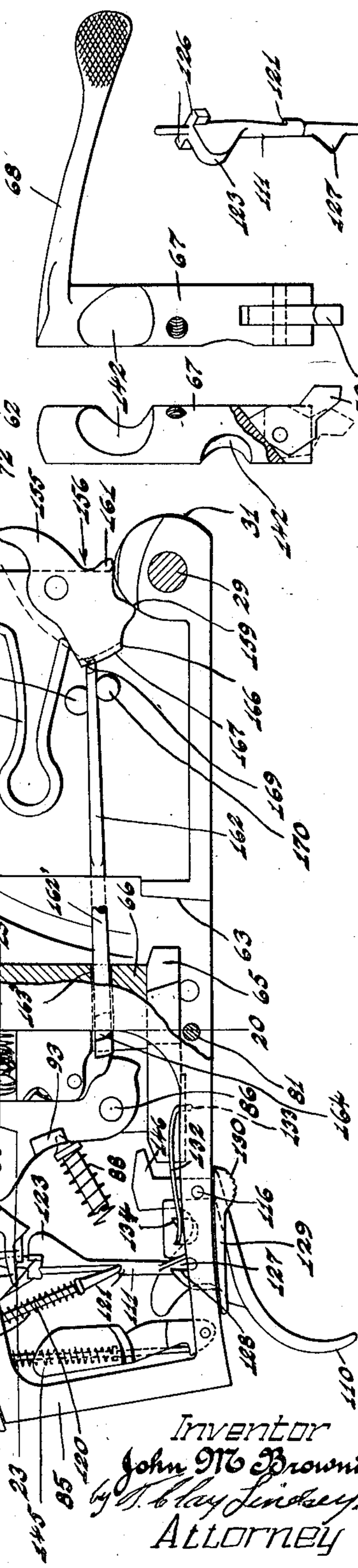

Fig. 6



Fig. 7



Fig. 8

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Fig. 11

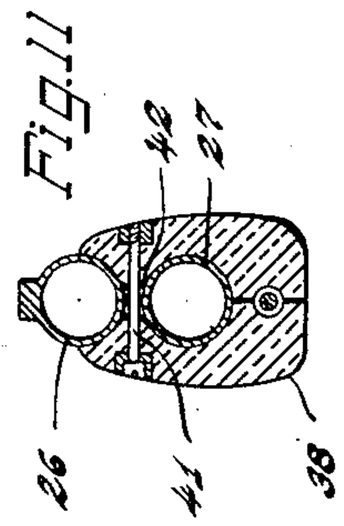


Fig. 10

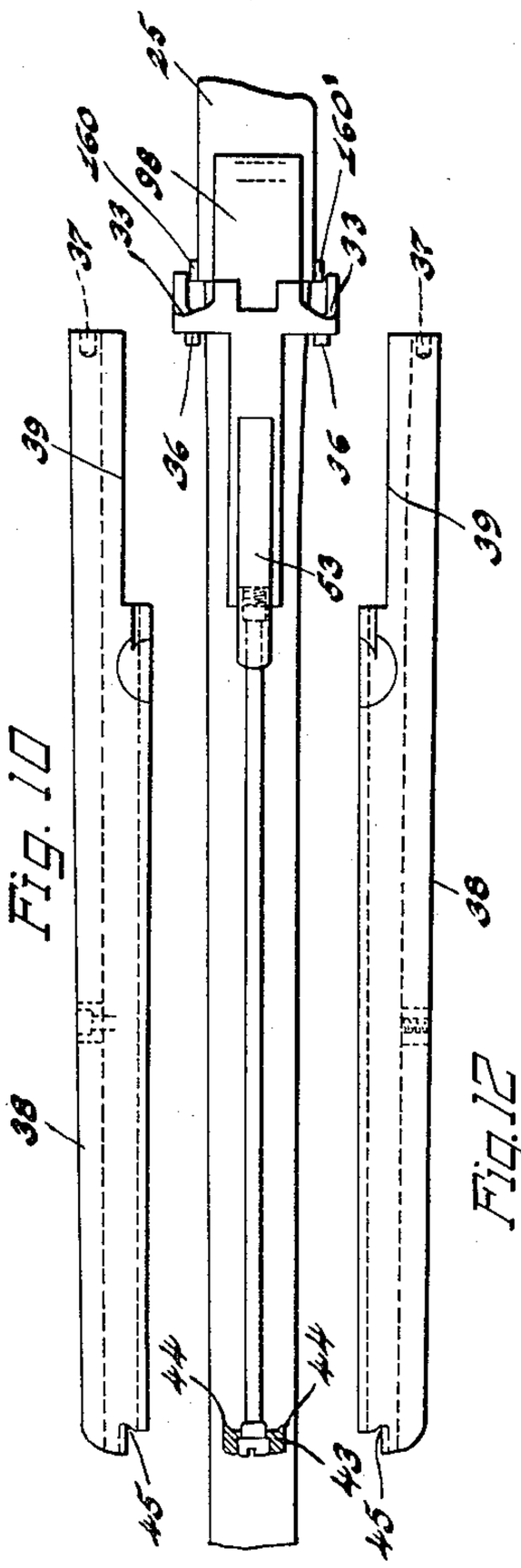


Fig. 14

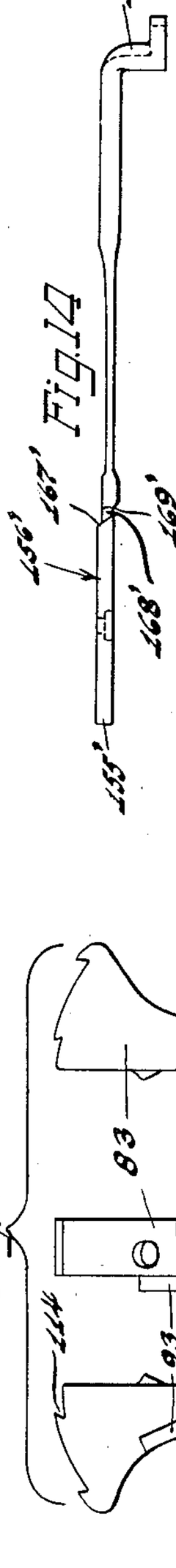


Fig. 15

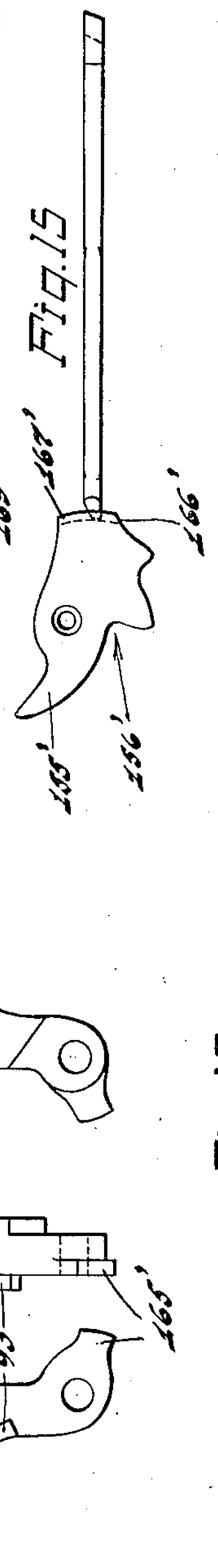


Fig. 18

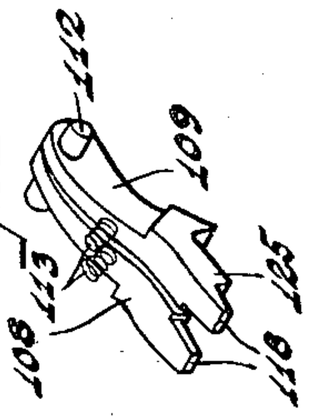


Fig. 17

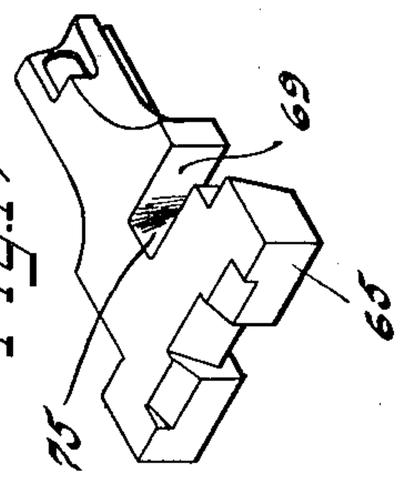


Fig. 16

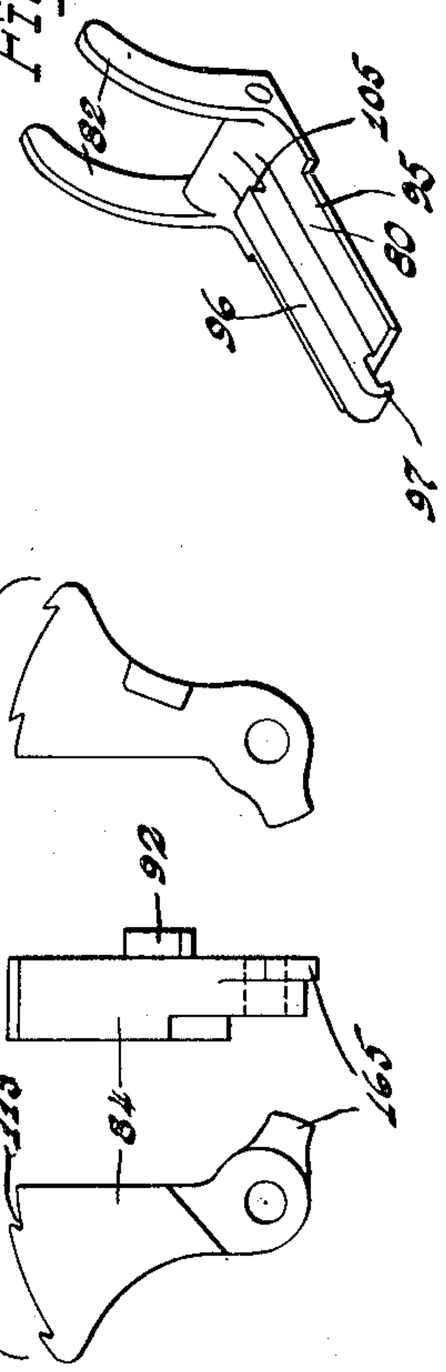


Fig. 12

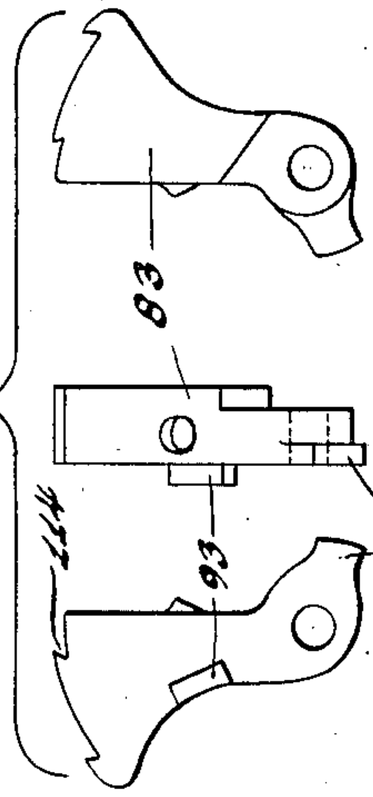


Fig. 13




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Fig. 21.

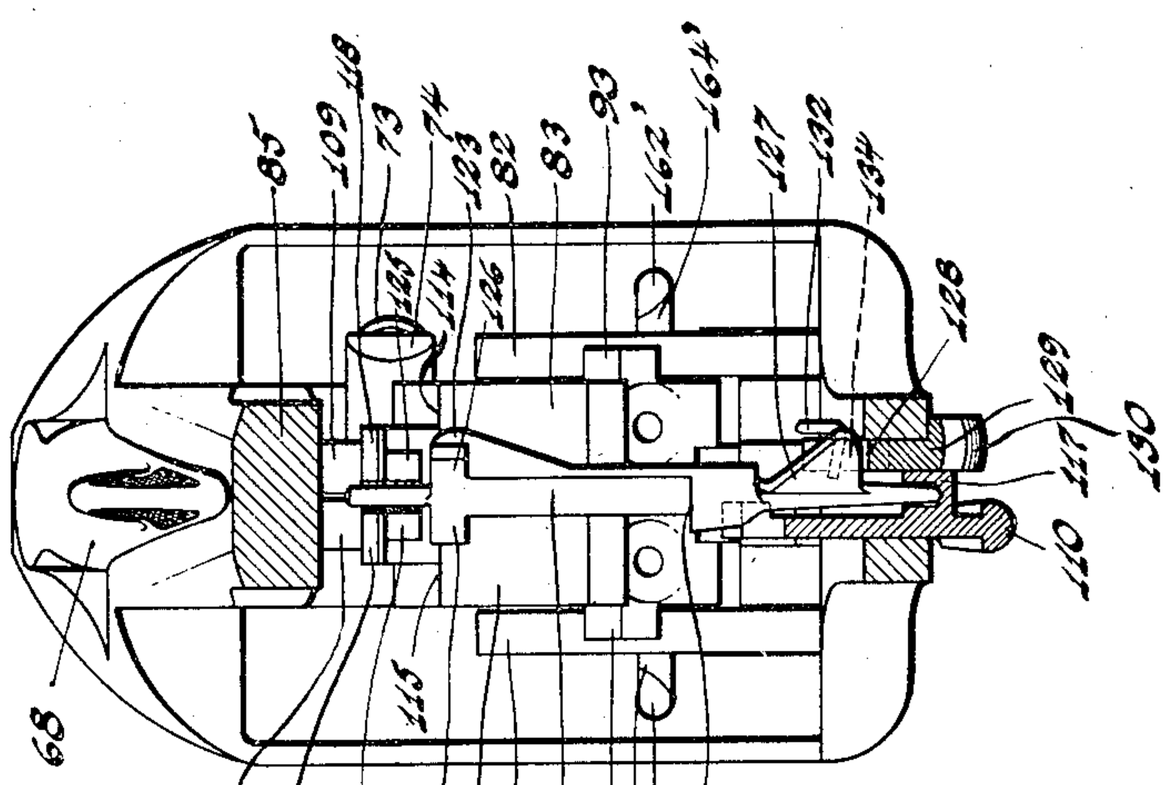


Fig. 20.

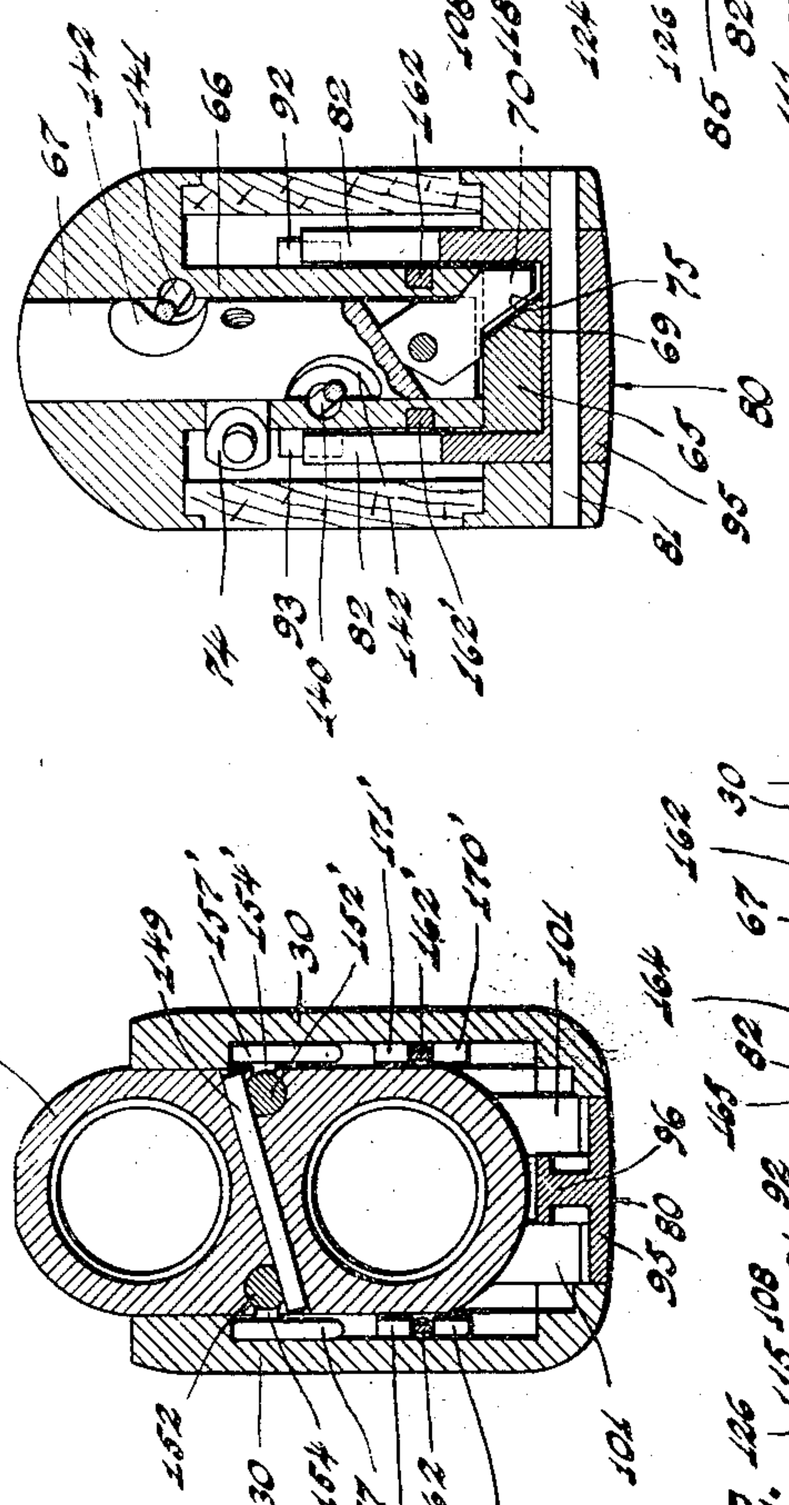


Fig. 22.

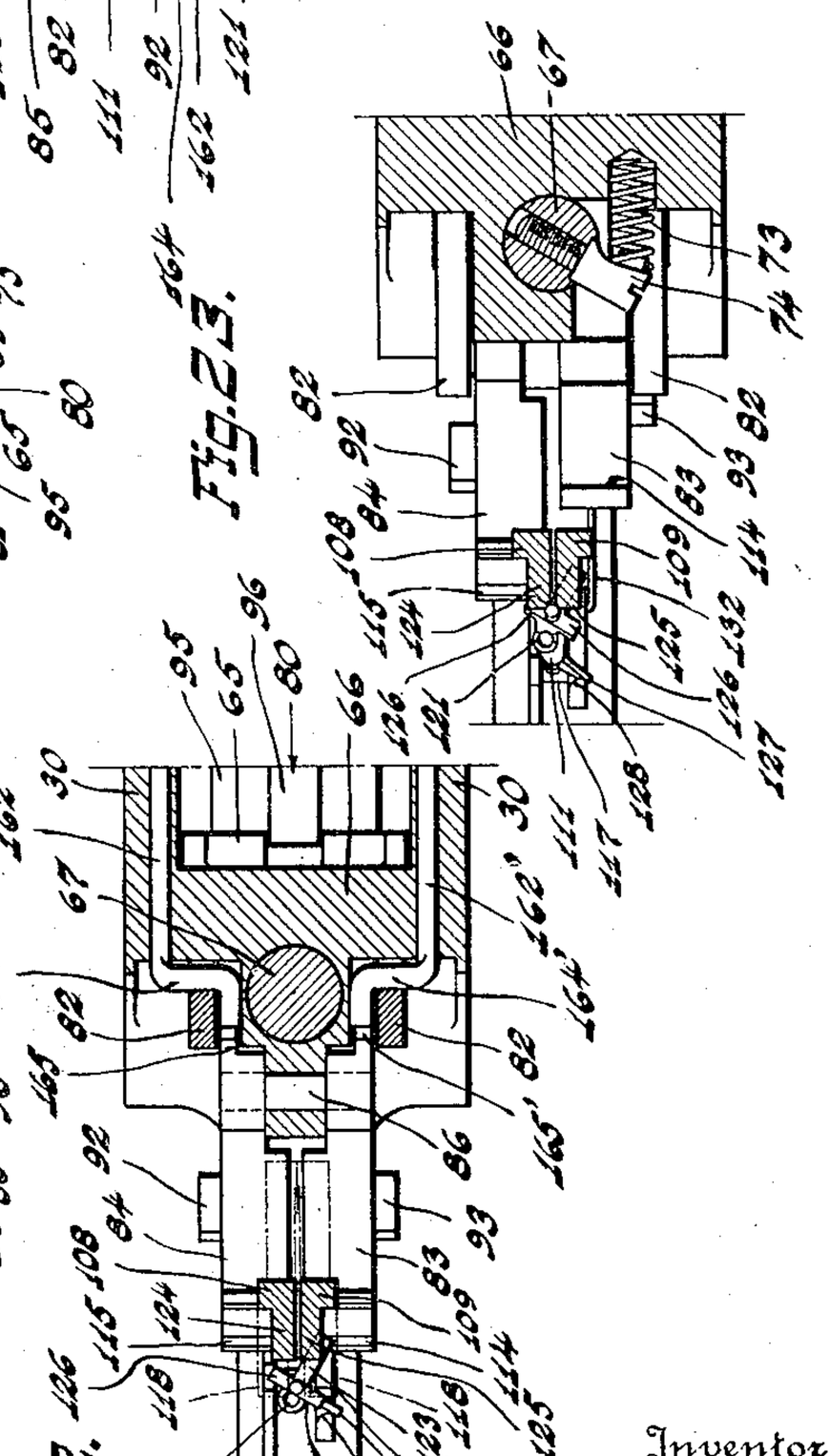


Fig. 19.




Inventor

John M Browning

By O. Clay Lindsey

His Attorney

Patented Mar. 30, 1926. 1,578,639

# UNITED STATES PATENT OFFICE.

JOHN M. BROWNING, OF OGDEN, UTAH.

## FIREARM.

Application filed September 29, 1924. Serial No. 740,454.

*To all whom it may concern:*

Be it known that I, JOHN M. BROWNING, a citizen of the United States, and a resident of Ogden, county of Weber, State of Utah, have invented certain new and useful Improvements in a Firearm, of which the following is a specification.

This invention relates to firearms of the shotgun type, and certain features of the invention find peculiar adaptation in firearms of the "over and under" type, such as is disclosed in my co-pending application, Serial No. 668,575, filed October 15, 1923.

The aim of the present invention is to provide a firearm of the character described, having various features of novelty and advantage.

A more particular object of the invention is to provide a gun of the over and under type with the forearm adapted to fit the under barrel and a portion of the over barrel in a manner generally similar to that shown in my said co-pending application, the present invention, however, being such that the forearm will closely fit throughout its length against the barrels, substantially obviating all spaces between the barrels and the forearm; the forearm may be assembled on and dissembled from the barrels without slipping the same over the forward end of the latter, a feature which is particularly advantageous where the forward end of the barrel is of increased diameter, to provide additional strength on account of the choke; and the forearm (which is preferably slidably mounted on the barrels to permit the latter to be dismounted from the receiver) may be caused to frictionally engage the barrels with such pressure that the forearm will be held against rattling or vibrations, and there will be sufficient "drag" on the forearm to permit it to be manually shifted in a most agreeable manner.

A further object of the invention is to provide an improved firing mechanism which is simple and economical in construction, and effective in operation, the arrangement being such that the barrels may be fired selectively, in either order; that is, the over barrel first and then the under one, or vice versa.

A still further object of the invention is to provide improved mechanism by means of which a discharged shell is automatically ejected from the barrel in which it is fired, and an unfired shell is retracted, but not ejected, when the gun is "broken."

Other objects of the invention will be in part obvious and in part pointed out in the following detailed description.

The invention accordingly consists in the features of construction, combination of elements, and arrangements of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the appended claims.

In the accompanying drawings, wherein I have shown for the purposes of illustration one embodiment which the present invention may take,

Figure 1 is a left hand side elevation of the gun with the front portion of the barrels and the shoulder portion of the butt stock broken away, a portion of the forward end of the stock being also broken away to expose the firing mechanism;

Fig. 2 is a similar view but showing the parts in their positions when the gun is in an opened, or what is commonly termed "broken" condition, the forearm being omitted;

Fig. 3 is a right hand side elevation of the receiver and the rear end of the barrel section, the right hand side wall of the receiver being broken away and the firing mechanism being illustrated with the right hand hammer cocked and the left hand one uncocked;

Fig. 4 is a view similar to Fig. 3 but with the barrel section entirely omitted and both hammers uncocked; the parts may be given the positions shown by taking down the gun and then pulling the trigger twice;

Fig. 5 is a perspective view of the rear end of the barrel section;

Fig. 6 is a view in front elevation of the stem or post of the top lever with its lower end partly in section;

Fig. 7 is a left hand side view of the top lever and its stem or post;

Fig. 8 is a perspective view of the connector or element through which the trigger operates the sears;

Fig. 9 is a perspective view of a member, herein termed a "shifter", for setting or turning the connector so that the barrels will be fired in the desired order;

Fig. 10 is an exploded view showing in bottom elevation the parts of the forearm and that portion of the barrel section to which the forearm is connected;

Fig. 11 is a transverse sectional view taken

substantially on the line 11—11 of Fig. 1 through the barrels and forearm;

Fig. 12 shows a right hand view, a front view, and a left hand view, respectively, of the right hand hammer;

Fig. 13 shows corresponding views of the left hand hammer;

Fig. 14 is a view in top plan of the right hand extractor actuator or ejecting lever and the catch or bolt associated therewith;

Fig. 15 is a left hand side view of the parts shown in Fig. 14;

Fig. 16 is a perspective view of the cocking lever;

Fig. 17 is a perspective view of the locking bolt;

Fig. 18 is a perspective view of the sears;

Fig. 19 is a transverse sectional view taken substantially on line 19—19 of Fig. 3, through the receiver and breech piece;

Fig. 20 is a transverse sectional view taken substantially on the line 20—20 of Fig. 4;

Fig. 21 is a transverse sectional view taken substantially on the line 21—21 of Fig. 2;

Fig. 22 is a longitudinal sectional view taken through the receiver substantially on the line 22—22 of Fig. 3; and

Fig. 23 is a view taken on the line 23—23 of Fig. 4, and illustrates the position which the connector takes after the trigger is pulled the first time to uncock the right hand hammer, and the trigger then released.

Referring to the drawings in detail, the "barrel section" (so termed for convenience) includes a breech piece 25 having two longitudinal holes bored through it, one above the other, and the respective over and under barrels 26 and 27 screwed or otherwise secured in the forward ends of these bores. The breech piece 25 has at its forward lower corner and just below the under barrel, a forwardly facing recess or groove 28 which receives a hinge pin or member 29 extending between the side walls 30 of the receiver, the lower forward corners of these side walls being curved as at 31, concentrically to the hinge pin 29. Adapted to engage against these curved surfaces 31 are curved surfaces 33 provided on the rear end of a take-down bracket 32, which is of like construction and of similar operation to the corresponding take-down bracket described and claimed in my said co-pending application. The take-down bracket, as shown in Figs. 2, 3 and 5, is a relatively narrow rectangular piece or block having at its rear end a portion of greater width provided on its forward face with dowel pins 36 which take into suitable recesses 37 in the rear end of the forearm designated generally by the numeral 38. The forearm is provide at its rear end with a slot 39 in which the narrow portion of the take-down bracket is seated.

The forearm 38 is similar to the forearm shown in my co-pending application in that it is hollow throughout its entire length and is substantially U-shape in cross-section, its sides being curved inwardly adjacent their upper edges so that the under barrel will fit snugly in the bottom of the rounded groove, and the sides of the groove will fit in and fill up the concave spaces between the two barrels and closely fit and partly surround the over barrel. In accordance with the present invention, the forearm, instead of being made in a single piece, is formed of two parts or halves connected together by a bolt 41 passing through the parts and through a slot 42 between the over and under barrels adjacent their rear ends. Guns of the type here disclosed are made with their barrels of increased diameter at their forward ends where the pressure of the shot is relatively high on account of the choke, the intermediate portions of the barrels having relatively thin walls for the sake of lightness in weight. It will be seen that by making the forearm in two sections; that is, longitudinally splitting the same, the forearm may be assembled on the barrels without slipping the same over the forward ends of the latter, and the sections may be drawn closely against the barrels (although the latter vary in diameter) so that there will be no unsightly spaces between the forearm and the barrels, and in which spaces dirt or the like might collect. A further object in making the forearm in two sections is that the frictional engagement between the forearm and the barrels may be adjusted to prevent looseness therebetween, and there will be sufficient "drag" on the forearm to permit an agreeable manual sliding movement thereof. The forearm is secured to the forward end of the take-down bracket by means of a screw 42, the sections being longitudinally grooved, as shown in Figs. 10 and 11, to accommodate this screw. The forward end of the screw passes through a union cap 43 countersunk into the forward ends of the forearm section, and having at each side a fin 44 which take into corresponding grooves 45 in the ends of the forearm sections so as to further hold the sections together.

The take-down lever bracket 32, together with the forearm to which it is secured, is slidably mounted on the barrel section so as to permit separation of the bearing parts of the hinged connection between the barrel section and receiver when it is desired to dismount the barrel section from the receiver. To slidably support the take-down bracket for such movement and to limit the extent of such movement there is provided on the underside of the under barrel 27 a depending lug 50 having a groove 51 at each side immediately beneath the under barrel; and the narrow rectangular portion of the take-down bracket, which is hollowed

out to receive this lug, has, on the forward upper portions of its inner faces, ribs 52 slidably mounted on the grooves 51. Rearwardly of the ribs 52 the opening or slot in the take-down bracket 32 is of sufficient width and length to permit this bracket to be slipped into and from position on the lug 50, as is fully described in my said co-pending application. The numeral 53 designates a take-down lever suitably pivoted in the bracket and carrying a plunger 54 normally urged forwardly into engagement with the lug by a spring 55.

It will be seen, with the arrangement so far described, that to assemble the receiver onto the barrel section the lever 53 is thrown down to the position shown in Fig. 5, and the bracket 32 is moved forwardly by sliding the forearm forwardly on the barrels; the receiver is positioned with the hinge pin 29 engaging the bearing or recess 28; the forearm, together with the bracket, is moved rearwardly to bring the bearing surfaces 33 and 31 into engagement, and then the take-down lever is thrown upwardly and forwardly into the position shown in Fig. 2 so as to bring it into engagement with the lugs 50 and thereby securely lock the forearm and the bracket from moving forwardly. Dismountal of the receiver from the barrel section is accomplished by a forward sliding movement of the forearm after the take-down lever 53 has been thrown down.

As disclosed in my co-pending application, for the purpose of securely holding the breech piece and receiver together against the force of an explosion of a shell, the inside faces of the side walls of the receiver may have arcuate slots 60 which receive corresponding curved ribs 61 on the sides of the breech piece when the gun is closed. Further provided on the sides of the breech piece adjacent the rear lower corner thereof are forwardly facing shoulders 62 which engage and bear against rearwardly facing shoulders 63, one provided on the inner side of each wall of the receiver adjacent the lower end of the arcuate slots 60.

The gun is locked in its closed position by a locking bolt 65 mounted for sliding movement in the receiver beneath the portion 66 which forms a vertical bearing in which the stem or post 67 of the top lever 68 is journaled. The locking bolt is provided at one side, as most clearly shown in Fig. 17, with a notch 69 which receives a projection or pawl 70 pivoted in the lower end of the post 67 so that when the top lever is swung outwardly to the right the locking bolt is moved rearwardly and out of engagement with a transverse groove 72 provided adjacent the bottom of the rear face of the breech piece 25, whereupon the gun is free to be broken. The locking bolt is normally urged into operative or locking position by the action of the spring 73 which bears at one end against a pin or screw 74 extending laterally from the top lever post and through a slot in the bearing portion 66 of the receiver. The other end of the spring rests against the bearing portion 66. The screw or pin 74 maintains the top lever post in position in the receiver.

The construction of the top lever post and the bearing therefor is generally similar to that disclosed in my co-pending application. In the present instance, however, the connection between the top lever post and the locking bolt is such that the post 67 and the opening in the portion 66 in which the post is journaled may be of relatively small diameter to effect economy in weight and space in the receiver, while at the same time the post may be inserted into and be withdrawn from the bearing portion 66. To this end the member 70 is pivoted in the lower end of the post so that it will assume the dotted line position shown in Fig. 6 when inserting or withdrawing the post. The member will be cammed out and held in the full line position of Fig. 6 by an inclined rear face 75 of the notch 69 in the locking bolt.

The cocking lever, designated generally by the numeral 80, has a body portion pivoted, by means of a pin 81, in the receiver beneath the top lever post 67. Extending rearwardly and upwardly from each side of the body portion of the cocking lever is an arm 82 suitably spaced apart to accommodate the locking bolt 65, the top lever post and its bearing portion, and the body portions of the hammers 83 and 84. The firing mechanism, of which the hammers constitute parts, is located in an opening of a frame-like portion 85 of the receiver extending rearwardly from the bearing portion 66. Both of these hammers are pivoted at the forward lower corner of said opening and immediately above the locking bolt by means of a common pivot member or pintle 86. When the left hand hammer 84 is released, it is actioned by a left hand main spring 87 to explode the shell in the over bore of the breech piece. When the right hand hammer 83 is released, it is actioned by a right hand main spring 88 and causes the firing of the shell in the under bore. Associated with the respective springs are plungers 89 and 90 which, respectively, bear at the forward ends against the hammers 84 and 83, as will be clear from the drawings. The left hand hammer has a laterally extending projection 92 positioned in the path of movement of the left hand arm 82 of the cocking lever, and the right hand hammer is provided with a similar projection 93 located in the path of movement of the right hand arm of the cocking lever. The cocking lever has a forwardly extending portion 95

positioned between the side walls 30 of the receiver adjacent their lower edges. This forwardly extending portion is provided with a central rib 96 having a hooked end 97 adapted to interlock with the rear hooked end 91 of an element here shown as being in the form of a link 98 pivoted, as at 99, to the rear end of the take-down bracket 32. This element or link is provided, adjacent its free end, with a pair of lugs 100 which are adapted to interlock with oppositely disposed lugs 101 depending from the breech piece, as shown most clearly in Figs. 3 and 5. As previously stated, to assemble the breech piece and barrel section, the forearm is slid forwardly of the barrels and, after the hinge pin 29 is brought into position within the bearings 28, the forearm is moved rearwardly and secured in position by a take-down lever 53. When thus moving the forearm rearwardly, the link is held upwardly so that the lugs 100 will be properly engaged with the lugs 101. This arrangement is generally similar to that disclosed in my said co-pending application. When the gun is closed, as shown in Fig. 3, the cocking lever link 98 and the forwardly extending portion 95 of the cocking lever close the bottom of the space between the side walls 30 of the receiver and have their hooked ends in position for engagement with one another when the gun is broken. The locking bolt 65, under the influence of the top lever spring 73, is normally urged into advanced or operative position with its front end engaging in the groove 72 of the breech piece, thereby securely holding the receiver and breech piece against pivoting relative to one another. To break the gun, the top lever is manually swung to the right, turning the top lever post and the pawl 70 carried thereby in a direction to force the locking bolt rearwardly out of engagement with the breech piece. In the operation of breaking the gun, the cocking lever, owing to its engagement with the link 98, is caused to swing on its pivot 81 so that the arms 82 swing backwardly and downwardly, and, in so doing, engage the lugs 92 and 93 on the hammers, if the latter are uncocked, thereby camming these hammers into cocked position. For the purpose of causing the cocking lever to maintain the locking bolt in its rearward or inoperative position when the gun is in broken condition, as shown in Fig. 2, an undercut shoulder 105 is provided on the rear end of the rib 94 on the cocking lever, and the forward end of the locking bolt has an inclined surface or shoulder 106 adapted to take in under the shoulder 105. The locking bolt is normally urged forwardly by the spring 73 so that the shoulders 106 and 105 will be held in engagement. This arrangement is very simple and effective, and is of advantage in that, in closing the gun, no force is required to push the locking bolt out of the way, as would be the case if the locking bolt extended into the path of swinging movement of the breech piece, requiring that the latter cam the locking bolt back.

Referring now, more particularly, to the firing mechanism, the respective hammers 83 and 84 are held in cocked condition by sears 108 and 109, which are actuated in the desired sequence by a single trigger 110 operating through a connector 111. The sears are pivoted above the hammers on a pin 112 and are urged by springs 113 into co-operating relation with sear notches 114 and 115 on the outer curved ends of the respective hammers 83 and 84.

The trigger 110 is pivoted on a pin 116 and in a slot in the bottom wall of the frame-like portion 85 of the receiver. Extending laterally from the trigger is a short stud 117 having a recess (see Fig. 21) which receives the lower round end of the connector 111. The upper end of the connector is positioned between and guided by rearwardly extending fingers 118 on the sears so that the upper end of the connector is held against lateral movement. The connector is urged forwardly towards the hammers by a spring 119 about a plunger 120, the lower end of which is seated on a shoulder 121 on the connector; the upper end of the plunger being slidably mounted in an opening 122 in the upper wall of the frame-like portion 85 of the receiver. The connector has a forwardly extending portion 123 adapted to be brought into selective engagement with the outer curved surfaces of the hammers when the latter are in cocked condition. The top edge of this portion 123 constitutes a shoulder or abutment adapted by turning the connector on a longitudinal axis to be selectively positioned beneath and to engage projections 124 and 125 on the rear ends of the respective sears 108 and 109, but just forwardly of the fingers 118. The connector is further provided with laterally extending lugs 126 adapted to be respectively engaged with the lugs 124 and 125 of the respective sears, depending on the position of the connector. Extending laterally from the connector adjacent its lower end is a fin 127 engaging in a notch 128 in the shifter 129 mounted for sliding movement in the slot in the bottom wall of the frame-like portion 85 alongside of the trigger. This shifter has a knurled or roughened surface 130 against which the finger or thumb may be pressed when it is desired to move the shifter from one position to another. In the present instance, the shifter is very simply and effectively held in position by a spring 132, one end of which extends into a recess 133 in the receiver and the other end of which is turned over

to engage a longitudinally curved surface 134 on the shifter. This surface 134 is transversely inclined, as shown in Fig. 21, and that end of the spring which engages the surface is similarly inclined so that the surface 134 tends to cam and hold the spring in position. The spring serves to hold the shifter in place on the receiver and also to retain the shifter in each of its extreme or operative positions.

The operation of the firing mechanism so far described is briefly as follows. Assuming that it is desired to fire the shell in the over bore first, the shifter 129 will be moved to its forward extreme position, thereby turning the connector about a vertical axis to a position where the forwardly extending portion 123 engages the left hand hammer and is positioned beneath the projection 124 of the left hand sear. When the trigger is pulled the first time, the connector will be raised, causing the projection 123 to lift the left hand sear, whereupon the left hand hammer will be released and the cartridge in the over bore will be fired. When the left hand hammer is thus released, it moves out of engagement with the projection 123, and the connector will swing forwardly until the right hand lug 126 engages the rear end of the projection 125 on the right hand sear (see Fig. 3) and the parts will retain this position as long as the trigger is held in pulled condition. When the trigger is released, the connector, under the influence of the spring 119, will move downwardly, whereupon the right hand lug 126 will be disengaged from the rear end of the projection 125, permitting the connector to swing forwardly so that the right hand lug 126 will be beneath the projection 125 of the right hand sear, as shown in Fig. 4. When the trigger is pulled a second time, the right hand sear will be raised to permit release of the right hand hammer and firing of the shell in the under bore. Both barrels having been fired, the gun will be broken for reloading, and the hammers, when they are swung back into cocked position by the cocking lever, will cam the connector to the position shown in Fig. 2. If it is desired to fire the under barrel first, the shifter will be moved to its rearmost position so that the connector will be turned to a position where the projection 123 engages the right hand hammer and is positioned beneath the lug 125 of the right hand sear, as shown in Figs. 21 and 22. In the latter figure, it will be seen that the left hand lug 126 is not in position beneath the projection 124 of the left hand sear. When the trigger is pulled, the right hand hammer will be released, and then, when the trigger is released, the connector will swing forward to bring the left hand lug beneath the projection 124 of the left hand sear, as shown in Fig. 23. It will be noted that the arrangement for effecting selective firing is extremely simple. It comprises but relatively few parts which may be cheaply manufactured and readily assembled. The connector may be very easily and quickly set to fire either barrel first by merely sliding the shifter from one position to the other.

The hammers 83 and 84, respectively, operate through firing pins 140 and 141 to fire the shells in the under and over bores, respectively. These firing pins are mounted for sliding movement in suitable apertures in the bearing portion 66 of the receiver, the post 67 being cut away as at 142 to accommodate the pins. On the upper surface of the frame portion 85 of the receiver and behind the top post lever is an undercut groove in which is slidably mounted a safety device or piece 143 having, on its under surface, a recess 144 which, when the safety device is in "off" position, is in alinement with the upper end of the plunger 120, permitting this end of the plunger to project into the recess when the trigger is pulled. To make the gun safe, the safety device is moved rearwardly into the safe or "on" position, where the unrecessed portion of the safety device is above the plunger so that the plunger, together with the connector, cannot be raised when it is attempted to pull the trigger. In order to prevent pulling of the trigger when the gun is not fully closed, the trigger is provided with a forwardly extending finger 146 under which the rear end of the locking bolt lies when the latter is in retracted position, as shown in Fig. 2. In order to permit the locking bolt to be moved to retracted or inoperative position without injury to the parts, in the event that the trigger should stick or be held, for any reason, in pulled condition, the locking box is provided with a plunger 147 normally urged rearwardly by a spring 148. This plunger, as shown in Fig. 3, is in alinement with the finger 146 when the trigger is in pulled position and the locking bolt is in operative position. When the locking bolt is retracted to permit breaking of the gun, the plunger engages the trigger and is pushed forwardly into the locking bolt, whereby injury or jamming of the trigger is prevented.

For illustrative purposes, the gun is shown as being provided with an inertia block or member 145 which operates to prevent what is known as "involuntary pull" or "doubling." This block is similar in construction to the block shown in my co-pending application and need not be here described in detail.

The mechanisms for ejecting fired shells, and retracting, without ejecting, unfired

shells, from the bores of the breech piece will now be described. Separate ejecting mechanism is provided for each barrel, but, as these mechanisms are similar in construction and operation, a description of one is illustrative of the other. For convenience, the ejecting mechanism associated with the "over" barrel will here be described and the corresponding parts of the ejecting mechanism for the "under" barrel will be designated by similar reference numerals primed. Each of these mechanisms is so arranged that, when the gun is broken while an unfired shell is in a bore, the ejecting mechanism associated with that bore will retract (but not eject) the unfired shell to a position where it may be gripped by the fingers. If the gun is broken after a shell has been fired, the ejecting mechanism will entirely eject or throw the spent shell out of the bore. Referring to the drawings, 150 designates an extractor associated with the over bore, this extractor being in the form of a plate having a lip 151 adapted to engage in front of the head or rim of a shell positioned in the over barrel. It is carried by a rod or stem 152 slidably mounted in a groove 153 in the left hand side of the breech piece, the forward end of the stem having a laterally extending lug 154 adapted to be engaged by an actuator when the gun is broken. In the present instance, the actuator is in the form of a lever 156 having a forwardly extending arm 155 adapted to engage the lug 154. The rod 152 and the corresponding rod 152′ on the right hand side of the breech piece are both held in place by a single retaining pin 149 which, as shown in Fig. 19, is diagonally disposed, with one end engaging the upper surface of the rod 152′ and the other end engaging the under surface of the rod 152; thus, the rods are very simply and cheaply held in place. The lever 156 is pivoted on the inside and at the forward end of the left hand wall 30 of the receiver. This lever is normally urged, in a direction to engage the arm 155 with the lug 154, by a spring 157 which may be generally of U form with one end 158 upturned to seat in a recess in the side wall 30 of the receiver. The other end of the spring engages the ejecting lever rearwardly of its pivotal point. Pivotal movement of the lever, under the influence of the spring 157, is limited by a shoulder 159 on the receiver, as shown most clearly in Figs. 4 and 5. Provided on the side and adjacent the forward lower corner of the breech piece is a lug or cam 160 which, during the operation of closing the gun, engages an extension 161 of the lever, resulting in the lever being turned from the position shown in Fig. 2, which may be termed the "operated" position, to the position show in Fig. 3, which may be termed the "cocked" or "operative" position. In the latter position, the spring 157 is under increased compression. Release of the ejecting lever 156 from cocked position is controlled by the cocking movement of the left hand hammer 84 which acts through a catch 162, here shown as being in the form of a rod formed of spring material. The catch 162 is slidably mounted in an opening 163 in the receiver and has, adjacent its rear end, an offset 164 against which the left hand arm 82 of the cocking lever engages when the gun is closed. The extreme rear end of the catch is adapted to be engaged by a forwardly extending portion 165 on the left hand hammer when this hammer is in uncocked position. The forward end of the catch is adapted to engage a shoulder 166 at the lower end of a curved surface 167 on the rear end of the lever 156. The arrangement is such that, during the breaking action of the gun, and when the catch is free to move rearwardly, the lever 156 will cam the catch rearwardly and out of engagement with the shoulder 166. To this purpose, the surface 168, which engages the shoulder 166, is bevelled or inclined, as shown in Figs. 3 and 15. To flex the spring, so that when the lever has been brought to cocked position the free end of the spring will swing beneath the shoulder 166, as shown in Fig. 3, the curved surface 167 is transversely bevelled or inclined, as shown most clearly in Fig. 14, and the forward end of the catch is similarly inclined or tapered, as indicated by the numeral 169. For the purpose of permitting movement of the catch relative to the lever 156, when the latter is not in cocked position, and thus allow for desired tolerances in manufacture and prevent jamming of the hammer against the catch in the event that the left hand hammer were released, the surface 167 is curved eccentrically to the pivotal point of the lever, its lowest end 166 being farthest away from the pivotal point. The forward end of the catch is suitably guided by studs 170 and 171 extending from the inside face of the side wall 30 of the receiver. Adjacent the forward upper corner of the side wall of the receiver is a camming surface 172 adapted to engage the lug 154 during the operation of closing the gun so as to move the extractors forwardly.

The operation of the ejecting mechanism for the over barrel will now be described, it being understood that the corresponding mechanism for the under barrel will operate in a like manner. When the gun is in the broken condition shown in Fig. 2, the actuator or ejecting lever is in operated condition with its arm 155 holding the extractor retracted. During the operation of closing the gun, the lug 160 on the barrel section will engage the extension 161 of the ejecting lever, thereby turning this lever

from operated position to the cocked position shown in Fig. 3. The left hand arm 82 of the cocking lever will engage the offset 164 of the catch and move the catch forwardly so that the rear end of the catch will be out of the path of movement of the portion 165 of the hammer, thus permitting the hammer to be released to uncocked position upon pulling the trigger. Assuming now that the gun is broken without first pulling the trigger to release the left hand hammer, the arm 82 of the cocking lever will be withdrawn from the offset portion of the catch, permitting the ejector lever to cam the catch rearwardly out of the way at the start of the breaking movement and, during the entire breaking movement, the extension 161 on the ejecting lever will be in engagement with the lug 160 so that the ejecting lever will slowly swing from operative to operated position, thereby slowly retracting the extractor, which means that the shell in the over bore will be slightly retracted but not entirely ejected. Assuming now that, after the gun has been closed, the trigger is pulled to fire the shell in the over barrel, the hammer will be in uncocked position with its portion 165 holding the catch in forward position with its forward end beneath the shoulder 166 of the ejecting lever. Upon breaking the gun, the catch will hold the ejecting lever in its cocked position for the major portion of the breaking operation and, just before this operation is completed, the cocking lever will have thrown the left hand hammer toward its cocked position to such an extent that the portion 165 of the hammer will be withdrawn from behind the catch with the result that the actuator will cam the catch rearwardly, which means that the actuator is released and, under the force of the spring 157, this lever will be thrown with a quick or snap movement from operative to operated position, thereby imparting a sharp or fast movement to the extractor so that the fired shell in the over barrel is completely ejected. When the actuator or ejecting lever 156 thus cams the catch rearwardly, the forward end of the catch will take in behind the rear end of the lever owing to the bevelled faces or inclined surfaces 167 and 169. As previously stated, the surface 167 is curved eccentrically with respect to the pivotal point of the ejecting lever so as to allow for tolerances in manufacturing the parts. This eccentric curvature is also of advantage in that it will prevent jamming of the hammer against the catch as, for instance, in the event that the receiver were removed from the barrel section and the left hand hammer was then released to uncocked position while the ejecting lever was in operated position, as shown in Fig. 4.

I claim as my invention:

1. In a firearm of the over and under type, a pair of barrels positioned one over the other, a forearm fitting the under barrel and a portion of the over barrel and curved inwardly between the barrels to fit the concave surfaces therebetween, said forearm being in two longitudinally extending sections and being slidable with respect to said barrels, and means for securing the sections together.

2. In a firearm of the over and under type, a pair of barrels positioned one over the other, a forearm having a groove rounded at its bottom portion to closely receive the under barrel and having its sides, adjacent their upper ends, curved inwardly and then outwardly to fill the concave spaces between the barrels and closely fit the under portion of the over barrel, said forearm being divided on its longitudinal medial line into two sections and being slidable with respect to said barrels, and means for securing said sections together and against the barrels.

3. In a firearm of the over and under type, a pair of barrels positioned one over the other, a forearm fitting about the under barrel and the lower portion of the over barrel and being slidable with respect to said barrels, said forearm being longitudinally divided into two sections, and means for drawing the sections against the barrel with the desired pressure.

4. In a firearm of the over and under type, a pair of barrels positioned one over the other and having a slot therebetween, a forearm fitting the under barrel and the lower portion of the over barrel and being slidable with respect to said barrels, said forearm being divided in two longitudinal sections, and a bolt extending through said sections and said slot.

5. In a firearm of the over and under type, a pair of barrels positioned one over the other, a slidable bearing part on the under side of the under barrel, a forearm fitting the under barrel and a portion of the over barrel and divided longitudinally into two sections, a union cap on the forward end of said forearm and having fins embedded in said sections for holding the same together, and a screw passing through said union cap and between said sections and threaded into said bearing part.

6. In a firearm of the over and under type, a pair of barrels positioned one over the other and having a slot therebetween, a slidable bearing part on the under barrel, a forearm fitting the under barrel and a portion of the over barrel and curved inwardly between the barrels to closely fit the concave surfaces therebetween, said forearm being in two longitudinally extending sections, a bolt passing through said sections and said slot and holding the sections together and

against the barrels, a union cap on the forward ends of said sections, and a screw extending through said union cap and between said sections and screwed into said part.

7. In a firearm of the over and under type, a barrel section having over and under barrels, a receiver, means for demountably pivoting said section to said receiver and including a bearing part slidably mounted on the under barrel, means for maintaining said slidable part on said barrel section in operative and inoperative positions, means for locking said slidable part in operative position, a forearm housing, at least in part, said bearing part and fitting the under barrel and a portion of the over barrel, said forearm being divided into longitudinally extending sections to permit assembly and dissembly thereof on said barrels, and means for removably securing the sections together and permitting of sliding movement of the forearm on the barrels.

8. In a firearm of the over and under type, a breech piece, a receiver pivotally connected thereto, a hammer pivoted on said receiver, a reciprocable locking bolt carried by said receiver and adapted for locking engagement with said breech piece when the gun is closed, means for reciprocating said bolt, a pivoted cocking lever for cocking said hammer when the gun is broken, and interengaging means on the forward end of said bolt and said cocking lever whereby the cocking lever holds the locking bolt in inoperative position when the gun is open.

9. In a firearm of the over and under type, a breech piece, a receiver pivotally connected thereto, a hammer pivoted in said receiver, a reciprocable locking bolt carried by said receiver and adapted for locking engagement with said breech piece when the gun is closed, means for reciprocating said bolt, means for normally urging the same into locking position, and a pivoted cocking lever for cocking said hammer when the gun is broken, said locking bolt having at its forward end a forwardly and downwardly inclined surface, said cocking lever having an undercut shoulder adapted to engage said surface whereby to hold the locking bolt in inoperative position when the gun is open.

10. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector carried by and movable relative to said trigger and arranged to successively actuate said sears on repeated pulls of the trigger, a shifter associated with said connector for selectively setting the same relative to said sears so that the latter will be operated in the desired selective order on repeated pulls of the trigger, and a spring acting on said connector for holding the same in operative position and for urging said trigger into unpulled position.

11. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a vertically extending connector supported at its lower end on said trigger for swinging movement relative to the trigger towards the sears and for turning about a longitudinal axis, said connector being arranged, on repeated pulls of the trigger, to successively actuate said sears, and means for turning said connector about its longitudinal axis so as to set the same to operate on the sears in selective order on repeated pulls of the trigger.

12. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector having one end supported on said trigger and mounted for turning movement, means on said sears for guiding the other end of said connector, said connector being arranged to successively actuate said sears on repeated pulls of the trigger, means for turning said connector so as to set the same to actuate said sears in selective order upon repeated pulls of the trigger, and a spring holding said connector on said trigger and normally urging said trigger into unpulled position.

13. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, and a connector having one end supported on said trigger and mounted for turning movement, means on said sears for guiding the other end of said connector, said connector being arranged to successively actuate said sears on repeated pulls of the trigger, means for turning said connector so as to set the same to actuate said sears in selective order upon repeated pulls of the trigger, a longitudinally movable plunger having one end engaging said connector between its ends, and a spring about said plunger for maintaining said connector in position and urging said trigger into unpulled position.

14. In a firearm of the over and under type, a barel section having a breech piece and a pair of barrels connected thereto one

over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector supportd on said trigger and arranged to successively actuate said sears on repeated pulls of the trigger, a longitudinally movable plunger having one end engaging said connector between its ends, a spring about said plunger and urging the same in a direction to maintain said connector in engagement with said trigger and normally urging said trigger into unpulled position, and a safety device adapted, in one position, to cooperate with said plunger to prevent pulling of the trigger and, in another position, permiting movement of said plunger when pressure is applied to the trigger.

15. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector having one end supported on said trigger and mounted for turning movement, means on said sears for guiding the other end of said connector, said connector being arranged to successively actuate said sears on repeated pulls of the trigger, means for turning said connector so as to actuate said sears in selective order upon repeated pulls of the trigger, a longitudinally movable plunger having one end engaging said connector between its ends, a spring about said plunger and urging the same in a direction to maintain said connector in proper relation to said trigger and said sears and normally urging said trigger into unpulled position, and a safety device adapted, in one position, to cooperate with said plunger to prevent pulling of the trigger and, in another position, permitting movement of said plunger when pressure is applied to the trigger.

16. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector associated with said trigger and arranged to successively actuate said sears on repeated pulls of the trigger, said connector being supported on said trigger for swinging movement about its lower end and for turning movement about its longitudinal axis, said connector having a laterally extending fin and being movable to position the same to actuate said sears in selective order, and a shifter having a notch in which said fin engages.

17. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted for turning movement and arranged to successively actuate said sears on repeated pulls of the trigger, a slidable shifter mounted in a slot in said receiver and cooperating with said connector to turn the same for selective operation on said sears, said shifter having a longitudinally-curved transversely-inclined surface, and a spring having one end fixed to said receiver and having the other end inclined correspondingly to and engaging said surface.

18. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, and a connector mounted on said trigger for turning movement from one position where, upon repeated pulls of the trigger, one sear and then the other sear will be actuated, and to another position where the sears, upon repeated pulls of the triger, will be actuated in the reverse order, said connector, when both of said hammers are cocked, being in operative relation to the sear to be first actuated and being held out of operative relation relative to the other sear by the hammer associated with the sear to be operated first.

19. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted on said trigger for turning movement from one position where, upon repeated pulls of the trigger, one sear and then the other sear will be actuated and to another position where the sears, upon repeated pulls of the trigger, will be actuated in the reverse order, said connector, when both of said hammers are cocked, being in operative relation to the sear to be first actuated and being held out of operative relation relative to the other sear by the hammer associated with the sear to be operated first, and a spring normally urging said connector into operative relation to said sears.

20. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers,

a sear for each hammer, a single trigger, and a connector mounted on said trigger for movement from one position where, upon repeated pulls of the tigger, one sear and then the other sear will be actuated and to another position where the sears, upon repeated pulls of the trigger, will be actuated in the reverse order, said connector, when both of said hammers are cocked, being in operative relation to the sear to be first actuated and being held out of operative relation to the other sear by the hammer associated with the sear to be operated first, each of said sears having means for maintaining said connector out of operative relation therewith when the hammer, which has engaged said connector, is fired and while the trigger is held in pulled position.

21. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted for turning movement on said trigger, means for moving said connector into one position where it will actuate first one sear and then the other, and to another position where the connector will actuate the sears in reverse order upon repeated pulls of the trigger, said connector having a sear engaging portion adapted, when the connector is turned, to be moved out of relation to one sear and into relation with another sear, said connector also having an individual sear engaging portion for each sear, said first portion being arranged to engage the hammer, when cocked, associated with the sear with which said portion is set to cooperate whereby the individual sear engaging portion adapted to cooperate with the other sear is held out of operative relation thereto.

22. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted for turning movement on said trigger, means for moving said connector into one position where it will actuate first one sear and then the other, and to another position where the connector will actuate the sears in reverse order upon repeated pulls of the trigger, said connector having a forwardly extending portion adapted, when the connector is turned, to be moved out of relation to one sear and into relation with another sear, said connector also having a pair of laterally extending lugs, one for each sear, said portion being arranged to engage the hammer, when cocked, associated with the sear with which said portion is set to cooperate whereby the lug adapted to cooperate with the other sear is held out of operative relation thereto.

23. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted for turning movement on said trigger, means on said sears for guiding the upper end of said connector, means for turning said connector into one position where it will actuate one sear first and then the other, and to another position where the connector will actuate the sears in reverse order upon repeated pulls of the trigger, said connector having a sear engaging portion adapted, when the connector is turned, to be moved out of relation to one sear and into relation with another sear, said connector also having an individual sear engaging portion for each sear, said first portion being arranged to engage the hammer, when cocked, associated with the sear with which said portion is set to cooperate whereby the individual sear engaging portion adapted to cooperate with the other sear is held out of operative relation thereto, and a spring holding said connector in place.

24. In a firearm of the over and under type, a barrel section having a breech piece and a pair of barrels connected thereto one over the other, a receiver for said breech piece, and firing mechanism carried by said receiver and including a pair of hammers, a sear for each hammer, a single trigger, a connector mounted for turning movement on said trigger, means for moving said connector into one position where it will actuate first one sear and then the other, and to another position where the connector will actuate the sears in reverse order upon repeated pulls of the trigger, each of said sears having a finger and a projection forwardly thereof, said connector having its upper end between and guided by said fingers and provided with a forwardly extending portion adapted to be selectively positioned beneath the projections on said sears, said connector also having a laterally extending lug at each side adapted to cooperate with the respective sears.

25. In a firearm of the over and under type, a receiver having a top lever post bearing, a locking bolt beneath said bearing, a top lever post in said bearing, and a part connected to said post and engaging said bolt, said part normally projecting laterally beyond said post and arranged to be in aline-

ment with said post when inserting or withdrawing the post into and from said bearing.

26. In a firearm of the over and under type, a receiver having a top lever post bearing, a locking bolt beneath said bearing, a top lever post in said bearing, and a pivoted member on the lower end of said post and cooperating with said bolt, said member normally extending laterally beyond said post and adapted to be in alinement with said post when the latter is inserted into or withdrawn from said bearing.

27. In a firearm of the over and under type, a receiver having a top lever post bearing, a locking bolt beneath said bearing and having a notch provided with a cam surface, a top lever post in said bearing, and a pivoted member on the lower end of said post adapted to be cammed outwardly into said notch by said surface when the post is inserted in said bearing.

28. In a firearm of the over and under type, a barrel section having a breech piece, a pair of barrels connected thereto one over the other, a receiver pivoted to said barrel section, an extractor for each barrel and each having a rod, said rods being supported for longitudinal movement in the respective opposite sides of the breech piece, and a single pin for retaining said rods in place.

29. In a firearm of the over and under type, a barrel section having a breech piece, a pair of barrels connected thereto one over the other, a receiver pivoted to said barrel section, an extractor for each barrel and each having a rod, said rods being supported for longitudinal movement in the respective opposite sides of the breech piece, and a retaining pin passing diagonally between said barrels and having one end engaging the upper surface of one rod and the other end the under surface of the other rod.

30. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism including a hammer, means for cocking the hammer when the firearm is broken, an extractor associated with the barrel for withdrawing shells therefrom, an actuator movably mounted on said receiver adapted to retract said extractor during the operation of breaking the firearm, a spring normally urging the actuator in a direction to retract said extractor, and means adapted to hold said actuator in operative position, said hammer being arranged to retain said means in holding position when the hammer is uncocked and during the major portion of the breaking operation of the firearm, said hammer being free of said means when the former is in cocked position.

31. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism including a hammer, means for cocking the hammer when the firearm is broken, an extractor associated with the barrel for withdrawing shells therefrom, an actuator movably mounted on said receiver adapted to retract said extractor during the operation of breaking the firearm, a spring normally urging the actuator in a direction to retract said extractor, and a member on the receiver adapted to engage and hold said actuator in operative position, said hammer being arranged to engage and retain said member in holding position when the hammer is uncocked and during the major portion of the breaking operation of the firearm, said hammer being free of said member and said member being free of said actuator when the hammer is in cocked condition.

32. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, an extractor on said barrel section for withdrawing shells therefrom, an actuator lever pivotally mounted on said receiver and adapted to move said extractor outwardly during the operation of breaking the firearm, means carried by said receiver and controlled by said hammer for controlling the ejecting movement of said actuator lever, and a fixed abutment on said barrel section adapted to directly engage said lever for moving the same to operative position when the firearm is closed and in any condition of the firing mechanism.

33. In a firearm, a receiver, a barel section pivoted thereto, firing mechanism on said receiver including a hammer, an extractor associated with the barrel for withdrawing shells therefrom, an actuator movably mounted on the receiver and adapted to retract said extractor during the operation of breaking the firearm, a cam on said barrel section for moving said actuator into cocked or operative position, said cam being fixed to said barrel section and adapted to directly engage said actuator during each and every operation of closing the firearm, a spring normally urging the actuator into operated position, and means controlled by said hammer for holding said actuator in cocked position during the major portion of the breaking movement of the firearm and to then release the same.

34. In a firearm, a receiver, a barrel section pivoted thereto, a hammer, an extractor associated with the barrel for withdrawing shells therefrom, an actuator pivotally mounted on said receiver and adapted to move said extractor during the operation of breaking the firearm, means on the barrel section for moving said actuator into cocked position when the firearm is closed, a catch carried by said receiver and adapted to engage and hold said actuator in cocked posi-

tion, said hammer having a portion arranged to retain said catch in holding position with respect to said actuator when the hammer is not cocked.

35. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, a longitudinally movable extractor associated with the barrel for withdrawing shells therefrom, an ejecting lever pivoted on said receiver and adapted to actuate said extractor, a spring normally urging said lever in a direction to engage the same with said extractor, means on the barrel section for turning said lever into cocked position and to compress the spring when the firearm is closed, a longitudinally movable catch carried by said receiver and adapted to hold said lever in cocked position, and a portion on said hammer for controlling the movement of said catch.

36. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism including a hammer, means for cocking the hammer when the firearm is broken, an extractor associated with the barrel for withdrawing shells therefrom, an actuator movably mounted on said receiver and adapted to retract said extractor during the operation of breaking the firearm, a spring normally urging the actuator in a direction to retract said extractor, and means adapted to hold said actuator in operative position when the hammer is uncocked and during the major portion of the breaking operation of the firearm, said hammer having a portion cooperating with said means and arranged to control the disengagement thereof from said actuator when the firearm is broken, said means for cocking said hammer being in engagement with said actuator holding means when the firearm is closed to retain said holding means out of the path of the firing movement of the hammer.

37. In a firearm, a receiver, a barrel section pivoted thereto, a hammer, a lever for cocking the hammer when the firearm is broken, an extractor associated with the barrel section for withdrawing shells therefrom, an actuator pivotally mounted on said receiver and adapted to move said extractor during the operation of breaking the firearm, means on the barrel section for moving said actuator into cocked position when the firearm is closed, and a catch carried by said receiver and adapted to engage and hold said actuator in cocked position, said hammer having a portion arranged to retain said catch in holding position with respect to said actuator when the hammer is not cocked, said cocking lever having a portion engaging said catch when the firearm is closed to retain the same out of the path of firing movement of the hammer.

38. In a firearm, a receiver, a barrel section pivoted thereto, a hammer, an extractor associated with the barrel for withdrawing shells therefrom, an actuator pivotally mounted on said receiver and adapted to move said extractor during the operation of breaking the firearm, means on the barrel section for moving said actuator into cocked position when the firearm is closed, a catch carried by said receiver and adapted to engage and hold said actuator in cocked position, said hammer having a portion arranged to retain said catch in holding position with respect to said actuator when the hammer is not cocked, said actuator being arranged to move said catch from holding position.

39. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, a longitudinally movable extractor associated with the barrel for withdrawing shells therefrom, an ejecting lever pivoted on said receiver and adapted to actuate said extractor, a spring normally urging said lever in a direction to engage the same with said extractor, means on the barrel section for turning said lever into cocked position and to compress the spring when the firearm is closed, a longitudinally movable catch carried by said receiver and adapted to hold said lever in cocked position, and a portion on said hammer for controlling the movement of said catch, said catch having a surface adapted to engage said lever and so inclined that the lever will cam the catch out of holding position when the catch is free to be thus moved.

40. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, a longitudinally movable extractor associated with the barrel section for withdrawing shells therefrom, an ejecting lever pivoted on said receiver and adapted to actuate said extractor when the firearm is broken, a spring normally urging said lever in a direction to engage the same with said extractor, means for turning said lever into cocked position and to compress the spring when the firearm is closed, and a longitudinally movable catch carried by said receiver and adapted to hold said lever in cocked position, said lever being arranged to cam said catch laterally when the lever is moved from cocked position.

41. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, an extractor associated with the barrel section for withdrawing shells therefrom, an ejecting lever pivoted on said receiver and adapted to actuate said extractor and having a surface terminating in a shoulder, a spring normally urging said lever in a direction to engage the same with said extractor, means for turning said lever into cocked position

and to compress the spring when the firearm is closed, and a longitudinally movable spring carried by the receiver and having one end adapted to engage said shoulder to hold said lever in cocked position, said surface and the adjacent end of said catch being laterally inclined in a direction to spring said catch laterally when the catch is released from said shoulder.

42. In a firearm, a receiver, a barrel section pivoted thereto, firing mechanism on said receiver including a hammer, an extractor associated with the barrel section for withdrawing shells therefrom, an ejecting lever pivoted on said receiver and adapted to actuate said extractor and having a surface terminating in a shoulder, a spring normally urging said lever in a direction to engage the same with said extractor, means for turning said lever into cocked position and to compress the spring when the firearm is closed, and a longitudinally movable spring carried by the receiver and having one end adapted to engage said shoulder to hold said lever in cocked position, said surface and the adjacent end of said catch being laterally inclined in a direction to spring said catch laterally when the catch is released from said shoulder, and said surface being eccentrically curved with respect to the pivotal point of said lever.

43. In a firearm, a receiver, a barrel section pivoted thereto, a hammer, a lever for cocking the hammer when the firearm is broken; an extractor associated with the barrel section for withdrawing shells therefrom, an actuator lever pivotally mounted on said receiver and adapted to move said extractor during the operation of breaking the firearm, means on the barrel section for moving said actuator lever into cocked position when the firearm is closed, and a longitudinally movable rod carried by said receiver and adapted to engage and hold said lever in cocked position, said hammer having a portion arranged to retain said rod in holding position with respect to said lever when the hammer is not cocked, said hammer being free of said rod and said rod being free of said lever when the hammer is cocked.

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