To all whom it may concern:

Be it known that I, ISAAC NEWTON LEWIS, a citizen of the United States of America, residing at 1 Russell Terrace, Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Trigger Mechanisms for Automatic Firearms, of which the following is a specification.

This invention relates to automatic firearms, and particularly to the trigger mechanisms of such firearms.

In automatic firearms of the light machine gun type as now in use, the trigger mechanism is operable to control the actuating mechanism of the firearm to permit either semi-automatic or complete automatic operation of the firearm. That is to say, the trigger mechanism is of such a nature that, when the trigger is pressed and very quickly released, a single operation of the actuating mechanism is permitted, to fire an individual round, and when the trigger is pressed and held in such position, repeated operation of the actuating mechanism is permitted to fire a plurality of rounds in rapid succession.

The primary object of the present invention is to provide an improved form of trigger mechanism of this general nature which may be adjusted so that when it is desired to operate the firearm semi-automatically, it is only possible to fire a single round at each operation of the trigger mechanism, and which may also be adjusted to fire entirely automatically so long as pressure on the trigger is maintained. Another object of the invention is to provide a trigger mechanism which may be adjusted to a safety position in which discharge of the firearm by accidental pressure of the trigger is entirely prevented.

The invention primarily comprises a trigger mechanism, having operative parts which are capable of relative adjustment to occupy different relative positions, said parts in one relative position permitting a single operation of said actuating mechanism, and in another relative position permitting repeated operation of said mechanism, following each operation of said parts.

The invention also consists in that the operative parts of the trigger mechanism include a sear adapted in its normal position to restrain said actuating mechanism from operation, said sear in one relative position of said parts, and at each operation thereof, being first released and then immediately restored to normal position, and in another relative position of the parts being released and held in inoperative position during maintained operation of said parts.

The invention further consists in that the operative parts of the mechanism include two members, such as a trigger and a sear, which are relatively adjustable to vary the extent of engagement of one member with the other, said engagement being such that in one relative position of the parts one of said members when operated engages and actuates and then immediately disengages from the other member, and in another relative position of the parts said member during maintained operation thereof, engages and actuates and remains in engagement with the other member, the latter member controlling the operation of the actuating mechanism.

One of the said members may be adjustable relatively to the other member by means of a pin having an eccentric portion co-acting with said member, said pin normally holding the member in one relative position and being rotatable through a predetermined angle to hold the member in another position, said member if desired being pivotally mounted on said eccentric portion.

The invention still further consists in that the operative parts of the mechanism are adjustable to occupy relative positions in which the trigger mechanism may be operated without causing operation of the actuating mechanism. To this end, the aforesaid members of the mechanism may be adjustable into relative positions in which they are out of engagement with each other, so that the one member may be operated without causing operation of the other member.

Various other features of the invention will be fully described hereinafter and clearly pointed out in the appended claims.

In the accompanying drawings one form of trigger mechanism constructed in accordance with the present invention is illus-
trated and is shown applied to an automatic firearm of the light machine gun type.

In these drawings

Figure 1 is a longitudinal sectional view of the body or receiver of the gun, within which body the actuating mechanism is located, the trigger mechanism applied to this body being also shown in longitudinal section;

Figure 2 is a view of the body or receiver of the gun similar to Figure 1, but showing the trigger pressed and the actuating mechanism in the position it assumes at the instant of firing;

Figure 3 is an end view of the body or receiver looking toward the muzzle of the gun and with the butt-stock and tang removed;

Figures 4 and 5 are cross-sectional views of the gun taken respectively on the lines 4—4 and 5—5 of Figure 1;

Figure 6 is a detail side elevational view of parts of the body and trigger mechanism looking at the side of the gun opposite to that shown in Figures 1 and 2;

Figure 7 is a plan view of the trigger mechanism removed from the body of the gun;

Figure 8 is an underneath plan view of the rear part of the trigger mechanism;

Figure 9 is an end view of the trigger mechanism looking toward the rear thereof;

Figures 10 and 11 are detail sectional views of the trigger mechanism showing the operative parts thereof in the safety and automatic positions;

Figure 12 is a view similar to Figure 11, but showing the parts in their relative positions when the trigger is pressed, and

Figures 13 and 14 are detailed plan views partly in section of the trigger mechanism, the operative parts being shown respectively in the positions corresponding with Figures 10 and 11.

For the purpose of illustration only and without any intention of limiting the application of the improved trigger mechanism thereto, said mechanism is illustrated in the drawings as applied to a shock-operated automatic firearm of the character described in co-pending application No. 269824 filed November 23rd, 1918. This firearm, of course, forms no part of the present invention, but its arrangement and operation will be briefly mentioned in order to clearly show the manner of application of the trigger mechanism thereto, and the manner in which said mechanism is adjustable and operable to control the actuating mechanism of the firearm for semi-automatic or complete automatic operation thereof.

When the breech block or bolt 1 is in the rearward position indicated in Figure 1 and is released by operation of the trigger mechanism in the manner hereinafter described, the return spring 2 moves the operating member 3 forwardly, and the post 4 of said member being in engagement with an inclined surface of a cam slot 4* in the bolt, the latter moves forwardly with the post and operating member, being prevented from rotating by a projection 5 engaging a slot 6 in the body 7 of the gun. As the parts advance in this relationship the lower front edge of the bolt engages the head of a positioned cartridge 8 and forces the same in advance of the bolt into the chambered end of the gun barrel 9. When the bolt engages the forward end of the barrel, the projection 5 engages a circumferential slot and permits the bolt to be rotated by the post 4 co-operating with the slot 4* to bring lugs on the bolt in front of lugs 10 on the body so as to prevent rearward movement of the bolt when the cartridge is fired. The operating member 3 and post 4 then advance still further to carry the firing pin 11 forwardly to strike the head of the cartridge and fire same. The gases of discharge resulting from the firing of the cartridge are utilized in the manner described in application No. 269823 filed November 23rd, 1918, to produce a shock or pressure impulse which is imparted to the forward end of a piston 12, the rear end of which is indicated in Figure 1, this piston being connected by a rod 13 to the operating member 3. This member is thus moved rearwardly by the shock or pressure impulse produced, and during such movement first retracts the firing pin 11, then co-acts with the cam slot 4* to rotate the bolt to release the lugs thereon from the lugs 10, and then engages the rear end of this slot to return the bolt to its rearmost position, as indicated in Figure 1, in which position it is again held by a part of the trigger mechanism, as hereinafter mentioned. The bolt 1, of course, provided with extractors at its front end which during the return movement of the bolt with the guard being ejected from the gun body through an aperture therein by means of suitable ejecting mechanism 15, Figure 5.

Referring now in detail to the trigger mechanism, it will be seen from Figures 1, 2 and 7 that this mechanism comprises a guard or support 16 slidably fitted to the lower part of the body 7, the side faces of the guard being provided with longitudinal slots 17, Figures 3 to 5, 9 and 10, adapted to co-act with longitudinal ribs or tongues 18 on the interior of the lower part of the body, so that the guard may be slid into place from the rear end of the body, the forward end of the guard abutting against a dividing wall 19 on the body, and the rear end of the guard being flush with the rear end of the body.
The guard 16 is provided at its upper portion with a recess 20, within which are located the sear 21 and the trigger 22 co-acting therewith. The sear is pivotally mounted on a pin 23, and is normally held by a spring 24 with its forward end against a stop 25 extending across said recess and its rear end elevated and extending through a slot 26 in the body 7, into the lower bore 27 of said body. The sear is thus normally in a position to engage a notch 28 in the bolt 1, when the latter is moved rearwardly a sufficient distance, in the manner described, in order to restrain said bolt against the pressure of the return spring 2.

The trigger 22 is pivotally mounted on a pin 29, hereafter more fully referred to, and is normally held by a spring 30 with its rear end in contact with the stop 25. The rear end of the trigger is bifurcated at 31, as shown particularly in Figures 7, 13 and 14, to receive the forward reduced end of the sear 21, and to provide a shoulder 32 adapted to co-act with said end of the sear.

In Figures 1, 2 and 7, the sear 21 and trigger 22 are shown in the relative positions which they occupy when the gun is to be fired semi-automatically, that is, when an individual round is to be fired at each pressure of the trigger. With the parts in these relative positions, it will be noticed that when the trigger 22 is pressed its bifurcated rear portion will move upwardly in the recess 20, and the shoulder 32 will engage underneath the reduced forward end of the sear 21 and will raise said end, lowering the rear end of the sear from the notch 28 in the bolt and thereby releasing the latter and permitting it to be advanced by the return spring 2 acting through the operating member 3 and post 4 in the manner already described. When the bolt is thus released and moved forward, the shoulder 32 snaps past the forward end of the sear, as shown in Figure 2, due to the relative movements of the trigger and sear about their respective pivot pins, and the sear is returned to its initial position ready to engage and hold the bolt when the latter is returned to its rearward position by the shock or pressure impulse produced following the discharge of the bullet. Figure 1 shows the parts in substantially the rearmost positions to which they are moved, the sear 21 having just engaged the notch 28 in the bolt, it being understood that in the "ready to fire" positions the operating member is advanced slightly relatively to the bolt to engage the post 4 with the inclined surface of the slot 4. The trigger 22 when relieved of the pressure thereon, is returned to its initial position by its spring 30, the elongated aperture 33 permitting the necessary slight forward movement of the trigger to enable the shoulder 32 to pass by the forward end of the sear in resuming its normal position.

The trigger and sear are, however, adapted to occupy relative positions other than those shown in Figures 1 and 2, that is, they may occupy the "safety" positions indicated in Figures 10 and 13, in which the trigger may be pressed without actuating the sear, or they may occupy the "automatic" positions indicated in Figures 11, 12 and 14, in which while the trigger is held pressed, the sear is retained in inoperative position.

By referring to Figures 5, 7, 13 and 14, it will be seen that the trigger 22 is pivotally mounted upon the eccentric central portion 34 of the pivot pin 29, this eccentric portion lying within the elongated aperture 33 of the trigger. The pin is provided with an enlarged screw-threaded portion 35 threaded into an aperture in the guard 16 to retain the pin in place, and with a handle 36 by means of which the pin may be rotated.

When the pin is rotated by means of the handle 36 in a counter-clockwise direction through approximately a quarter revolution, from the position shown in Figures 1, 2 and 7 to that shown in Figures 10 and 13, the trigger is moved slightly forwardly by the eccentric portion 34, so that the shoulder 32 is advanced to bring it just in front of the forward end of the sear and when the trigger is pressed the shoulder will rise in front of the forward end of the sear without actuating the latter. Thus pressure on the trigger while in this "safety" position, merely rocks the trigger on its pivot pin and the sear is not actuated, neither is the bolt released. When the trigger is in this position the gun may be carried in entire safety with the bolt held in the position shown in Figure 1 and without danger of the firearm being discharged by accidental pressure upon the trigger.

When the pin 29 is rotated by the handle 36 in a clockwise direction through approximately a quarter of a revolution, from the position shown in Figures 1, 2 and 7, to that shown in Figures 11, 12 and 14, the eccentric portion 34 of the pin moves rearwardly and permits a slight rearward movement of the trigger so that the shoulder 32 passes further beneath the front end of the sear, as in Figure 11. Thus when the trigger is pressed, the shoulder 32 engages the front end of the sear and actuates the same to release the bolt as previously described, but instead of snapping past the end of the sear, as indicated in Figure 2, said shoulder remains in engagement therewith so long as the pressure on the trigger is maintained, and holds the rear end of the sear in depressed inoperative position, as indicated in Figure 12.

The bolt then on its rearward
movement is not held by the sear, but when it has moved rearwardly sufficient to clear the head of the succeeding cartridge 8, it is again pressed forward by the spring 2, 5 the operation being repeated until the trigger is released, or the magazine exhausted.

There is thus provided a trigger mechanism, the operative parts of which are adapted to occupy several relative positions, namely, the "safety" position in which the trigger mechanism may be operated without releasing the actuating mechanism so as to prevent accidental discharge of the firearm; secondly, the automatic position in which by maintaining pressure on the trigger the sear is held in inoperative position and the actuating mechanism permitted to repeatedly fire a plurality of rounds in continuous succession, and thirdly, the semi-automatic position in which the actuating mechanism at each pressure of the trigger is only permitted a single actuation so that it is only possible to fire a single round at each operation of the trigger mechanism.

The handle 36 is somewhat resilient or springy and is provided with a notch or groove 37 adapted to co-act with the part 38 of the guard 16 to normally hold the trigger 32 in the "semi-automatic" position, as in Figure 1. When the handle is moved into the "safety" or "automatic" positions indicated in dotted lines in Figures 6 and 7, and in full lines in Figures 13 and 14, it is held in such positions by its resilient frictional pressure against the exterior surface of the guard 16. It is, of course, understood that the pin 29 is so constructed that the slight axial movement thereof when it is rotated, due to the screw-threads on the portion 36, will not interfere with the movements of the trigger or cause the parts to jam, sufficient play being allowed to permit these movements.

The cartridges may be fed into the chambered end of the gun barrel from a magazine of any convenient or usual type. In Figures 1 and 2 a magazine 30 is illustrated adapted to contain a plurality of cartridges which are pressed upwardly into position to be engaged by the bolt 1 by means of a follower 40 actuated by a spring 41. The magazine is inserted in a recess formed in the lower part of the body 7 in communication with the lower bore 27 therein, the forward wall of the magazine having an aperture adapted to engage over a pin 42 in the forward wall of the recess, and the rear wall of the magazine engaging with a latch 43 which extends through an aperture in the wall 19 into a notch or aperture 44 in the said rear wall, which wall may be slightly pressed out above the notch, as indicated, to more securely co-act with the latch.

The latch 43, as shown in Figures 1, 7 and 9, is mounted in a recess in the forward end of the guard 16 of the trigger mechanism, the latch having tongues 45 on its side faces coacting with corresponding grooves in the walls of said recess and being pressed forwardly by a spring 46. The forward and rearward movements of the latch are limited by a pin 47, co-acting with a groove in the upper face of the latch. By 75 rearward pressure against the rear curved end 49 of the latch, which is located in close proximity to the trigger 29, the forward end of the latch may be released from the notch 44, thus permitting the magazine to fall or be removed from the recess in the body. Thus without substantially changing the position of the hand in firing, an empty cartridge magazine may be released from the firearm and a loaded magazine substituted in place thereof by means of the latch 43, enabling the re-loading of the firearm to be effected with extreme rapidity and ease.

The assembled butt-stock 50 and butt-tang 51 are removably connected to the body 7 in the manner illustrated in Figures 1 and 2. The tang is formed with a forwardly extending flange 52, the forward edge of which has an inwardly extending flange 53, the flange 53 corresponding in shape to the rear end of the body and its lower portions being open or cut away. The rear end of the body is provided with an outwardly extending flange 54. The tang may thus be slid downwardly over the end of the body portion with the said end in contact with the butt-tang plate 55, and the flange 52 will, when the tang is in place, prevent downward and lateral movement thereof and the plate 55, and the co-acting flanges 53, 54 will prevent relative longitudinal movement between the tang and body. To prevent the tang being removed upwardly from the body except when it is desired to disconnect the stock and tang from the body, the plate 53 is provided at its lower part with a notch or aperture 56 with which the nose 57 of a pivoted latch 58 is adapted to engage. This latch is pivoted on a pin 59 within a recess 60 in the rear end of the guard 16 of the trigger mechanism, this latch when in the position indicated in Figure 2, permitting the butt-tang to be applied and removed and when in the position indicated in Figure 1, preventing removal of the tang by engagement of its nose 57 with the lower wall of the notch 56. The forward portion of the latch is bifurcated at 61 (see Figures 7 and 8) and the arms of the bifurcation are normally slightly spread apart so that when in the position of Figure 1, they resiliently engage the walls of the recess in the guard with sufficient pressure to hold the catch in locking position. The forward end of the latch is provided with an aperture 62 and the 130
guard adjacent said aperture has recesses 63, so that by the insertion of the pointed end of a bullet in one of the recesses and in the aperture 62, the latch may be readily released to permit the butt-tang and stock to be removed from the body. It will thus be seen that the guard 16 of the trigger mechanism is held in place by the butt-tang when the latter and the butt-stock are positioned on the body, and that the guard is provided at its rear and front ends with means for holding in place the tang and butt-stock and the cartridge magazine. The lowermost edges 64 of the body preferably extend downwardly a sufficient distance to cover the pins 23, 47 and 58 of the trigger mechanism so as to conceal these pins and at the same time to prevent accidental displacement thereof, the pins being simply pressed into place and held there by the said edges. The edges 64 are notched at 65 to receive the end of the handle 36.

While one form of trigger mechanism has been described above in detail it is, of course, to be understood that the invention is not in any way restricted to this particular form of trigger mechanism, but that the constructive features thereof may be varied as may be found desirable or necessary to adapt the mechanism to any particular construction of firearm, or for any other purpose. Nor is the invention restricted to its use with any particular form of automatic firearm. The essential feature of the invention as has been indicated above, is the provision of a trigger mechanism, the operative parts of which are adapted to be adjusted into different positions, in one of which the actuating mechanism is controlled for semi-automatic firing, and in another of which said mechanism is controlled for complete automatic firing.

In a third position the operative parts are positioned so that accidental discharge of the firearm is entirely prevented.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. Trigger mechanism for automatic firearms, comprising in combination, a one-piece sear member, and a one-piece trigger member having overlapping engagement, and positively acting means operable prior to and independently of the actuation of said mechanism in firing for bodily adjusting one of said members relatively to the other to vary the extent of said overlapping engagement from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

2. Trigger mechanism for automatic firearms, comprising in combination, a movable operating member having integral pressure receiving and pressure applying parts a second movable member having a part rigid therewith and engaged by the pressure applying part of the first member, and means operable prior to and independently of the actuation of said mechanism in firing for moving one of said members bodily relatively to the other member to vary the extent of engagement of said parts from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

3. Trigger mechanism for automatic firearms, comprising in combination, a one piece trigger member, a movable member having overlapping engagement with a part of said trigger member, and means operable prior to and independently of the actuation of said mechanism in firing for bodily adjusting said trigger member relatively to said movable member to vary the overlapping relation therebetween from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

4. Trigger mechanism for automatic firearms, comprising in combination, two members movable about pivotal axes and having rigid operating parts in overlapping engagement along a line passing approximately through said axes, and means operable prior to and independently of the actuation of said mechanism in firing for bodily moving one member relatively to the other to vary the distance between said axes and to vary the extent of said overlapping engagement from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

5. Trigger mechanism for automatic firearms, comprising in combination, a pivoted member having an operating part integral therewith, a second pivoted member having an integral operating part engaged by the operating part of the first member, and adjustable means operable prior to and independently of the actuation of said mechanism in firing operative to vary the distance between the pivots of said members to determine the extent of operative engagement of said parts for single shot firing or continuous automatic firing.

6. Trigger mechanism for automatic firearms, comprising in combination, a pivoted member having a rigid operating part, a second pivoted member having a part thereof operatively engaged by the operating part of the first member, said parts being dischargeably engaged by predetermined annular movement of said members about their pivots, and means operable prior to and independently of the actuation of said mechanism in firing for moving one of said members bodily relatively to the other member to increase the extent of said operative engagement to maintain the same during said angular movement.

7. Trigger mechanism for automatic fire-
arms, comprising in combination, a pivoted member having an operating shoulder rigid therewith, a second pivoted member having a shoulder rigid therewith and engaged by the shoulder of the first member, and means for varying the distance between the pivots of said members to relatively move said shoulders from a position of minimum engagement for single shot firing to a position of maximum engagement for continuous automatic firing, or vice versa.

8. Trigger mechanism for automatic firearms, comprising in combination, a pivoted integral movable member, a second pivoted integral movable member operatively engaged by the first member, and means for varying the distance between the pivots of said members to vary the extent of the operative engagement thereof from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

9. Trigger mechanism for automatic firearms, comprising in combination, an integral movable member, a second integral member movable about an axis and having operative engagement with the first member, and means for displacing the pivotal axis of the second member from one position in which said members have minimum operative engagement for single shot firing to a second position in which said members have maximum operative engagement for continuous automatic firing, or vice versa.

10. Trigger mechanism for automatic firearms, comprising in combination, an integral member movable about a fixed pivot, a second integral member movable about an axis and having operative engagement with the first member, and means for displacing the pivotal axis of the second member from a position in which said members have minimum operative engagement for single shot firing to a position in which said members have maximum operative engagement for continuous automatic firing, or vice versa.

11. Trigger mechanism for automatic firearms, comprising in combination, an integral movable member, a second integral member having operative engagement with the first member, and a pivot pin having an eccentric portion on which said member is pivotally mounted, said pivot pin being rotatable about a fixed axis to move said eccentric portion from a position in which said members have minimum operative engagement for single shot firing to a position in which said members have maximum operative engagement for continuous automatic firing, or vice versa.

12. Trigger mechanism for automatic firearms, comprising in combination, an integral sear pivotally movable about a fixed axis, a pivoted integral trigger having operative engagement with said sear, and a pivot pin for said trigger movable about a fixed axis and having an eccentric portion on which said trigger is mounted, said pin being rotatable to displace said eccentric portion and the trigger thereon toward or from the pivotal axis of the sear to vary the operative engagement of the trigger with the sear for single shot or continuous automatic firing.

13. Trigger mechanism for automatic firearms, comprising in combination, two movable members normally having overlapping engagement, and means for one of said members to bodily adjust said member relatively to the other into a safety position in which said members are out of overlapping engagement.

14. Trigger mechanism for automatic firearms, comprising in combination, two members movable about pivotable axes and having parts in overlapping engagement, and means for one of said members to move said operating parts from a safety position in which they are out of operative engagement to a firing position in which said parts are in operative engagement, or vice versa.

15. Trigger mechanism for automatic firearms, comprising in combination, a pivotable member having an operating part integral therewith, a second pivotable member having an integral operating part, and adjustable means operative to vary the distance between the pivots of said members to move said operating parts from a safety position in which they are out of operative engagement to a firing position in which said members are in operative engagement, or vice versa.

16. Trigger mechanism for automatic firearms, comprising in combination, an integral movable member, a second integral movable member operatively engaged by the first member, and means for producing bodily relative movement between said members into relative positions in which they are out of operative engagement, or vice versa.

17. Trigger mechanism for automatic firearms, comprising in combination, an integral movable member, a second integral member having an axis, and means for displacing the pivotal axis of the second member from a safety position in which said members are out of operative engagement to a firing position in which said members are in operative engagement, or vice versa.

18. Trigger mechanism for automatic firearms, comprising in combination, an integral member movable about a fixed pivot, a second integral member movable about an axis, and means for displacing the piv...
otol axis of the second member away from the pivot of the first member from a firing position in which said members have operative engagement to a safety position in which said members are out of operative engagement, or vice versa.

19. Trigger mechanism for automatic firearms, comprising in combination, an integral movable member, a second integral pivoted member normally having operative engagement with the first member, and a pivot pin having an eccentric portion on which the second member is mounted, said pivot pin being rotatable about a fixed axis to move said eccentric portion from a firing position in which said members are in operative engagement to a safety position in which said members are out of operative engagement, or vice versa.

20. An automatic firearm, comprising in combination, a body portion, breech mechanism movable within said body portion, a trigger mechanism controlling said breech mechanism, a support for said trigger mechanism slidably connected to said body portion at the under side thereof, and a butt stock removably connected to the rear end of said body portion and engaging said support to hold the same in place, and a butt stock removably connected to said tang.

21. An automatic firearm, comprising in combination, a body portion, breech mechanism movable within said body portion, trigger mechanism controlling said breech mechanism, a support for said trigger mechanism longitudinally slidably connected to said body portion at the under side thereof, and a butt stock removably connected to the rear end of said body portion by a sliding movement at right angles to the sliding movement of the trigger support, said butt stock engaging said support at the rear end thereof to hold the same in place.

22. An automatic firearm, comprising in combination, a body portion, breech mechanism within said body portion, trigger mechanism controlling said breech mechanism, a support for said trigger mechanism slidably connected to said body portion at the under side thereof, a butt stock removably connected to the rear end of said body portion and engaging said support to hold the same in place, and means on said support normally preventing removal of said butt stock.

23. An automatic firearm, comprising in combination, a body portion, breech mechanism within said body portion, trigger mechanism controlling said breech mechanism, a support for said trigger mechanism slidably connected to said body portion at the under side thereof, a butt stock removably connected to the rear end of said body portion and engaging said support to hold the same in place, a recess at the rear end of said support, and a member pivotally mounted in said recess and normally co-acting with an aperture in the butt stock to prevent removal thereof.

24. An automatic firearm, comprising in combination, a body portion, breech mechanism within said body portion, trigger mechanism controlling said breech mechanism, a support for said trigger mechanism slidably connected to said body portion at the under side thereof, a butt stock removably connected to the rear end of said body portion and engaging said support to hold the same in place, a recess at the rear end of said support, and a member pivotally mounted in said recess and normally co-acting with an aperture in the butt stock to prevent removal thereof, said member having a bifurcated portion resiliently gripping the walls of said recess in locking position.

25. An automatic firearm, comprising in combination, a body portion, breech mechanism within said body portion, a trigger mechanism controlling said breech mechanism, a support for said trigger mechanism slidably connected to said body portion at the under side thereof, a butt stock removably connected to the rear end of said body portion, a cartridge magazine removably secured to said body portion at the under side thereof, and means carried by said support at the forward and rearward ends thereof for respectively releasably holding in place said cartridge magazine and butt stock.

26. Trigger mechanism for automatic firearms, comprising in combination, a movable member having a rigid operating part, a pivoted member having a rigid operating part in operative, engagement with said movable member, and a pivot pin for said pivoted member movable to displace said pivoted member relatively to said movable member to vary the operative engagement therebetween from a minimum for single shot firing to a maximum for continuous automatic firing, or vice versa.

In testimony whereof I affix my signature in presence of two witnesses.

ISAAC N. LEWIS.

Witnesses:

ALVIN OHLEN,

ARTHUR O. SAUNDERS.