Aug. 16, 1949. H. H. SEFRIED, II 2,479,419

SEMIAUTOMATIC FIREARM CONVERTIBLE TO FULL AUTOMATIC

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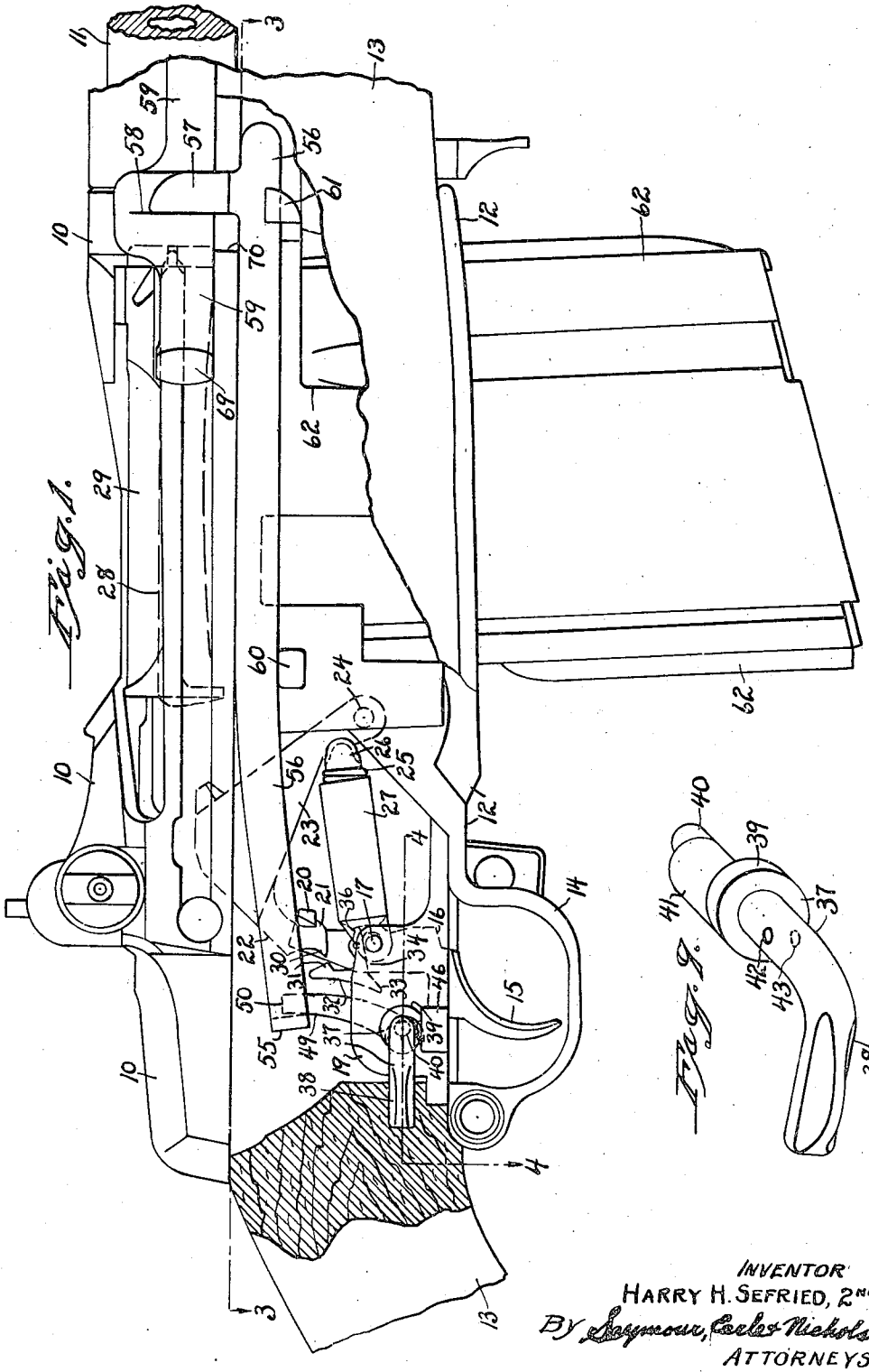

Fig. 1.

Fig. 9.

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Fig. 2.

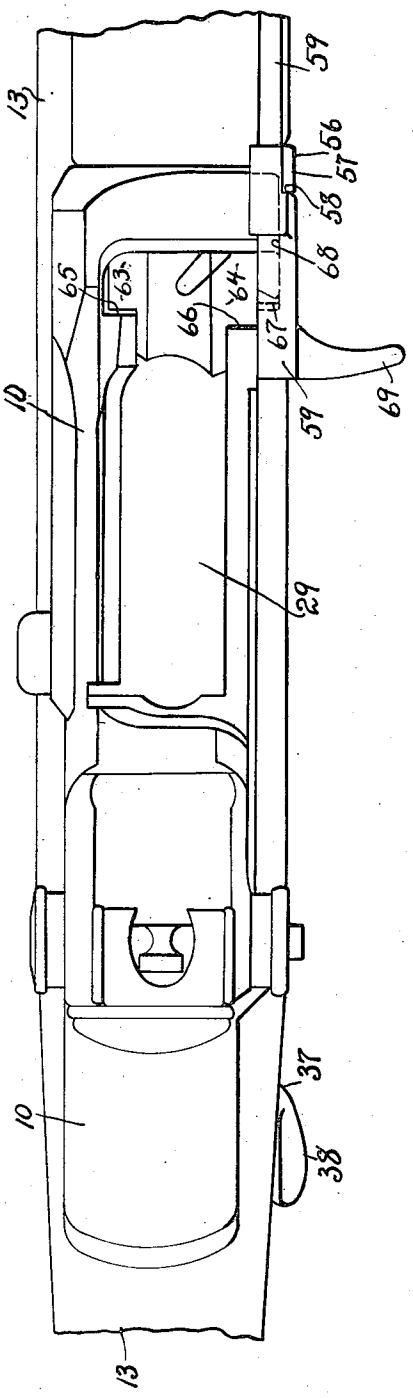

Fig. 3.

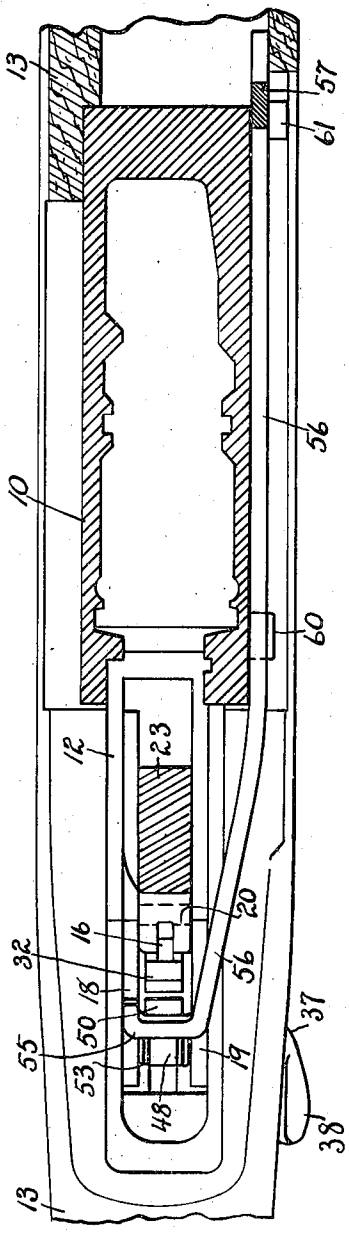

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Fig. 8.

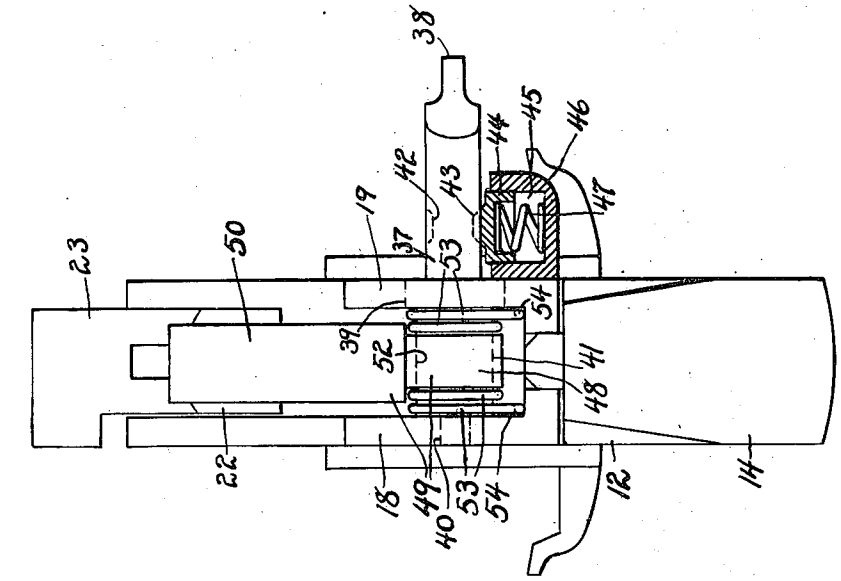


Fig. 7.

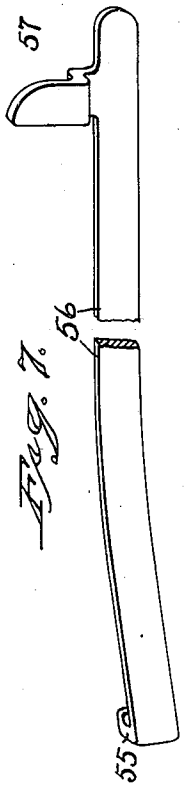
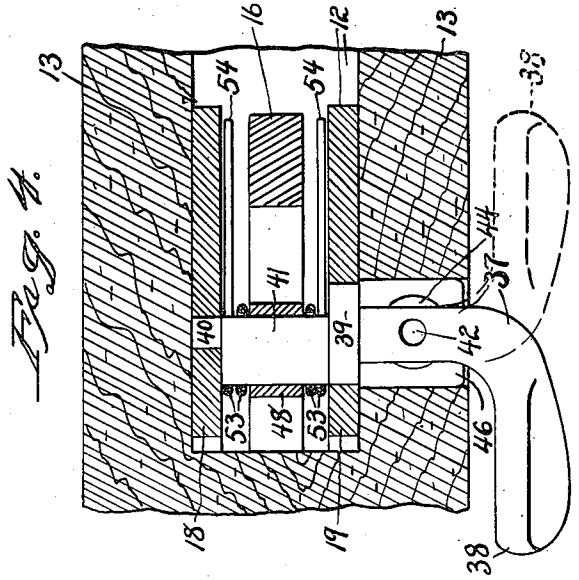


Fig. 4.



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SEMIAUTOMATIC FIREARM CONVERTIBLE TO FULL AUTOMATIC

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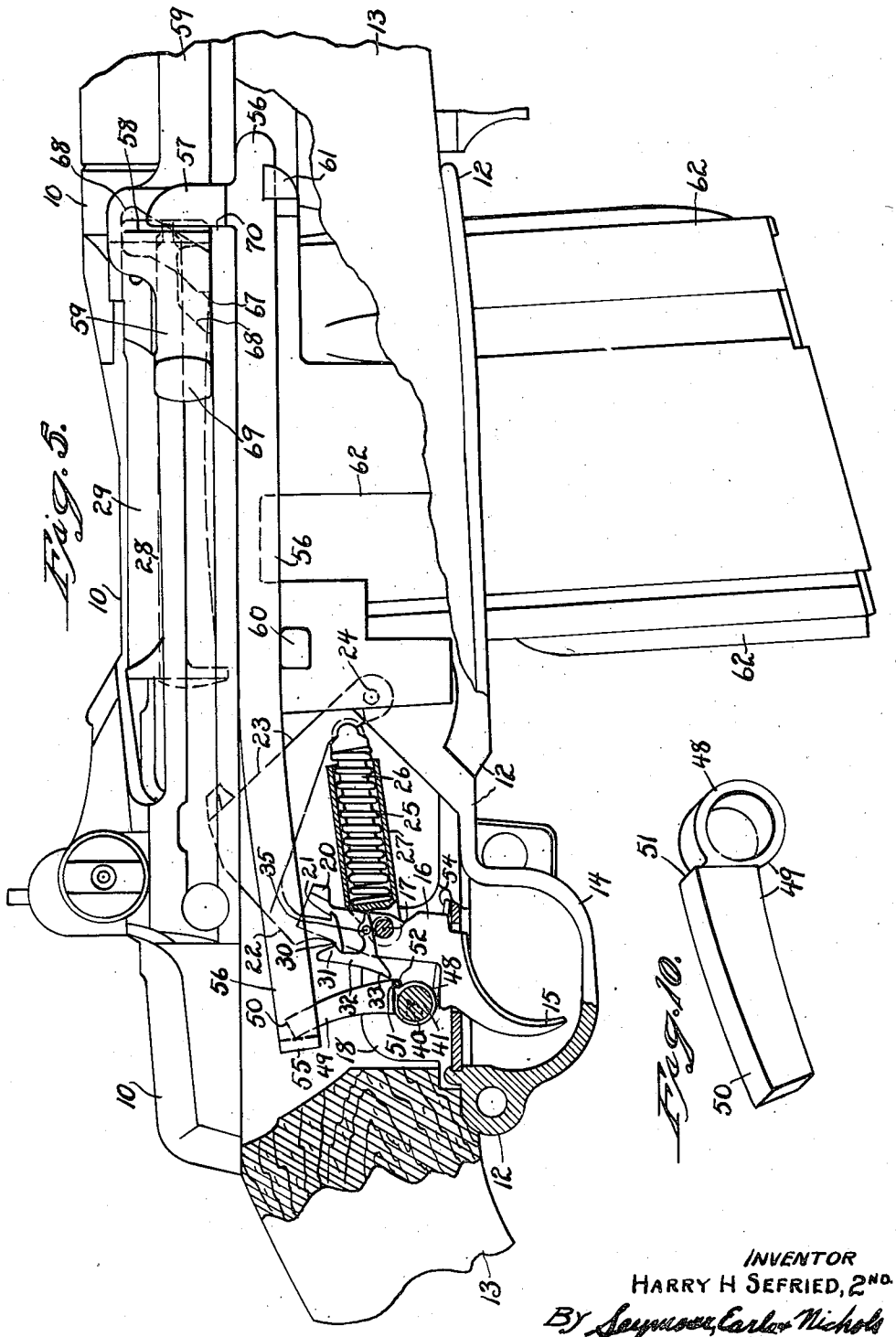

Fig. 5.

Fig. 10.

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SEMIAUTOMATIC FIREARM CONVERTIBLE TO FULL AUTOMATIC

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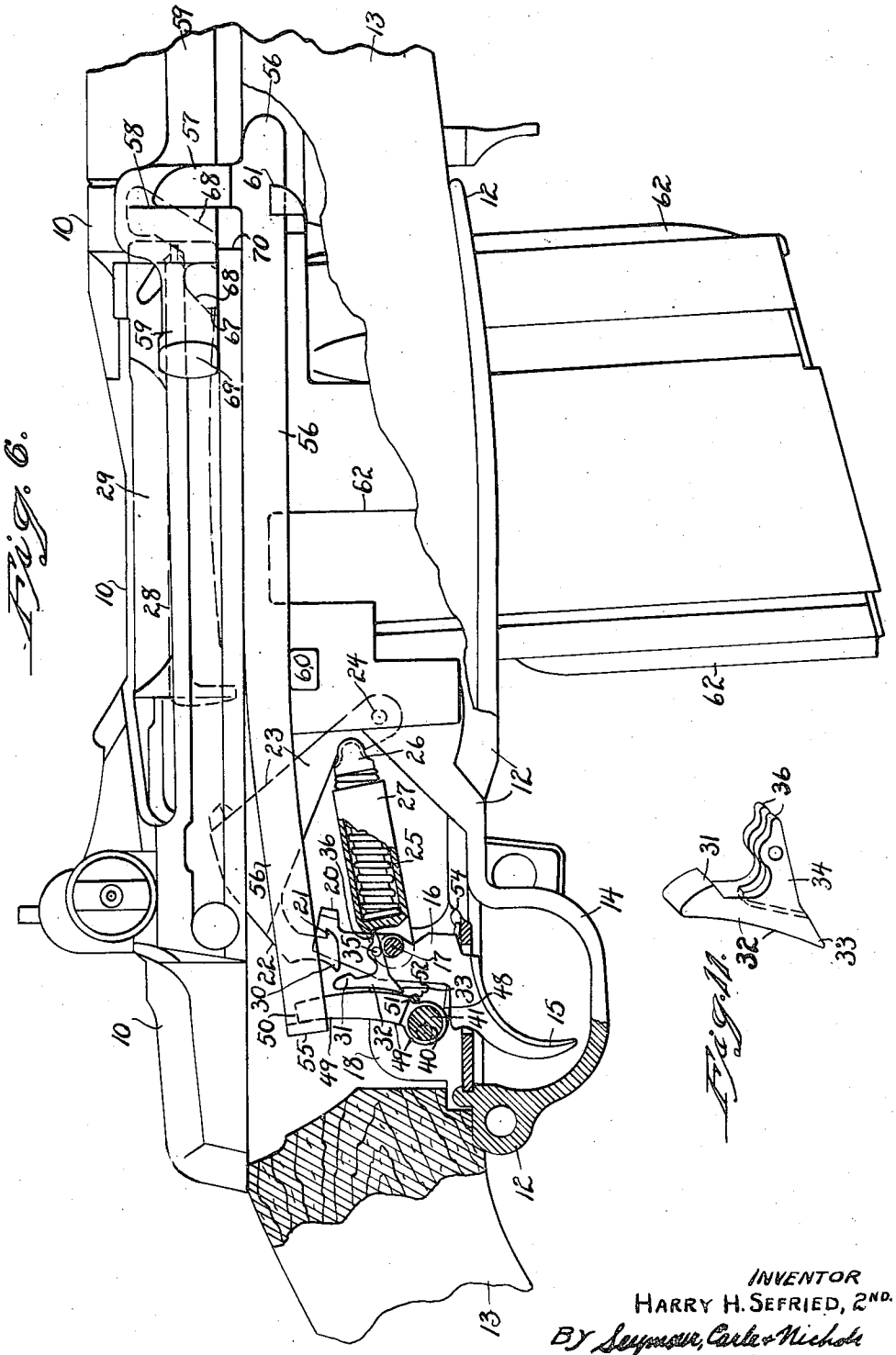

Fig. 6.

Fig. 6A.

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UNITED STATES PATENT OFFICE

2,479,419

SEMIAUTOMATIC FIREARM CONVERTIBLE TO FULL AUTOMATIC

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Application August 25, 1944, Serial No. 551,101

2 Claims. (Cl. 89—140)

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The present invention relates to improvements in self-loading firearms, and relates more particularly to self-loading firearms of a type which will operate as automatic weapons, i. e., weapons which will automatically reload and repeatedly discharge as long as the trigger is held in a retired position. The features of this present invention are also useful in self-loading firearms which require the operation of the trigger for each shot.

One of the objects of the present invention is to provide a superior firearm-mechanism which will function selectively either automatically or semiautomatically at the option of the user, and which will combine reliability of action with low cost for manufacture and maintenance.

Another object of the present invention is to provide a superior self-loading automatic firearm which will insure that the breech-bolt thereof is fully closed and locked before each discharge takes place.

A further object of the present invention is to provide a superior self-loading automatic firearm wherein the rate of discharge may be kept relatively low, to thus avoid the wastage of ammunition, and without resorting to costly, complex or unreliable means.

Still another object of the present invention is to provide a simple, reliable and effective mechanism whereby a semiautomatic firearm of the well-known Garand type may be converted for full automatic operation without requiring extensive modifications.

With the above and other objects in view, as will appear to those skilled in the art from the present disclosure, this invention includes all features in the said disclosure which are novel over the prior art and which are not claimed in any separate application.

In the accompanying drawings, in which certain modes of carrying out the present invention are shown for illustrative purposes:

Fig. 1 is a broken view of the central portion of a self-loading firearm embodying the present invention, shown mainly in side elevation with the stock partly broken away and partly in vertical section, the breech-bolt being shown in its fully-closed position and with the selector-member and associated parts positioned to cause the firearm to operate semiautomatically;

Fig. 2 is a top or plan view thereof;

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1;

Fig. 4 is a broken sectional view on an enlarged scale taken on the line 4—4 of Fig. 1;

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Fig. 5 is a view similar to Fig. 1 except that the parts are shown as set to cause the full automatic discharge of the firearm, the trigger being shown held in its retired position, the breech-bolt in its fully closed and locked position, but with the bolt-operating slide and the sear-actuating bar shown slightly rearwardly of their full forward positions;

Fig. 6 is a view similar to Fig. 5 but showing the bolt-operating slide and the sear-actuating bar in their foremost positions to effect the retirement of the secondary-sear, and the hammer at substantially the instant of release;

Fig. 7 is a broken perspective view of the sear-actuating bar detached;

Fig. 8 is an enlarged-scale view in rear elevation of the trigger-plate unit detached;

Fig. 9 is an enlarged-scale perspective view of the selector-member;

Fig. 10 is a similar view of the sear-actuating lever detached; and

Fig. 11 is an enlarged-scale perspective view of the secondary-sear detached.

The firearm illustrated in the accompanying drawings is of the well known Garand type modified in accordance with the present invention, and comprises a receiver 10, a barrel 11, a trigger-plate unit 12 and a stock 13. The barrel 11 projects rigidly from the forward end of the receiver 10, while the trigger-plate unit 12 is located generally below the receiver 10, in a manner usual in military firearms. The parts 10, 11 and 12 are suitably secured to the stock 13.

At its lower rear portion, the trigger-plate unit 12 is formed with a loop-like trigger-guard 14 accommodating and shielding the finger-piece 15 of a trigger generally designated by the reference character 16. The said trigger 16 is mounted for pivotal movement upon a trigger-pin 17 extending transversely of the firearm-structure and supported at its respective opposite ends in two spaced-apart side-plates 18 and 19 forming integral features of the trigger-plate unit 12.

The trigger 16 extends substantially above the trigger-pin 17 and is provided at its forward upper portion with a laterally-offsetting primary cocking-lug 20 adapted to have its under face engaged on occasion (Fig. 1) by the upper face of a complemental primary cocking-lug 21 formed at the forward lower corner of a cocking-arm 22 constituting an integral part of a pivotal hammer 23. The said hammer is mounted for swinging movement upon a transversely-extending hammer-pin 24 supported in the trigger-plate unit 12.

The said hammer is urged to swing in a clockwise direction by a helical hammer-spring 25 which partly envelops and thrusts forwardly upon a plunger 26 which latter has its forward end engaged with the hammer 23. The hammer-spring 25 is mainly housed within and thrusts rearwardly upon a spring-housing 27 having its rear end loosely supported by the trigger-pin 17.

The hammer 23 when released to the action of the hammer-spring 25, is adapted to strike the rear end of a firing-plunger 28 and drive the same forwardly to discharge the firearm, in a manner well known in the art. The said firing-plunger extends centrally through a breech-bolt 29, which latter will be more fully hereinafter described.

In addition to its primary cocking-lug 21, the cocking-arm 22 of the hammer 23 is formed at its lower rear portion with a secondary cocking-lug 30 adapted on occasion to be engaged and releasably held by the similarly-sloping under-face of a secondary cocking-lug 31 formed at the upper end of a substantially-T-shaped secondary-sear 32 (Fig. 11). The said secondary-sear includes a depending tail 33 and a bifurcated body-portion 34 straddling the adjacent portion of the trigger 16 and pivotally connected thereto by means of a sear-pin 35.

The rear face of the spring-housing 27 is concave and bears against the rounded forward end of a detent-nose 36 formed at the forward end of the body-portion 34 of the secondary-sear 32. In this manner, the tension of the hammer-spring 25 is applied rearwardly through the spring-housing 27, to yieldingly retain the secondary-sear 32 in the position shown in Figs. 1 and 5 relative to the trigger 16. This effect is made possible by the loose fit of the extreme rear portion of the spring-housing 27 around the trigger-pin 17.

Rotatably mounted in the side-plates 18 and 19 of the trigger-plate unit 12, in a location rearwardly of and slightly below the trigger-pin 17, is a selector-member generally designated by the reference character 37 and of substantially-L-shaped form, as is especially well shown in Figs. 4 and 9. The said selector-member includes a handle-portion 38 projecting outwardly and then longitudinally in a direction parallel with the stock 13. The said selector-member 37 also includes a relatively-large-diametered bearing-portion 39 which is cylindrically contoured and which bears in the side-plate 19 of the trigger-plate unit 12 (Fig. 4). At its end opposite the handle-portion 38, the said selector-member is formed with a relatively-small-diametered bearing-portion 40 arranged coaxially with respect to the bearing-portion 39 and rotatably mounted in the side-plate 18. Intermediate its respective bearing-portions 39 and 40, the selector-member 37 is formed with a cylindrically-contoured eccentric 41 which spans the gap between the laterally-spaced-apart side-plates 18 and 19 of the trigger-plate unit 12.

As will more fully hereinafter appear, the selector-member 37 is designed and adapted to be set in two different positions to respectively set the mechanism to cause the firearm to fire semiautomatically or fully automatically. When the outer end of the handle-portion 38 is turned to point rearwardly (Fig. 1), the firearm will function as a semiautomatic weapon, i. e., a self-loading firearm which requires the individual actuation of the trigger 16 to effect the discharge of each shot. When the selector-member 37 is

turned so that the outer end of its handle-portion 38 extends horizontally forwardly, as indicated by broken lines in Fig. 4, the firearm will function as a full automatic weapon, i. e., will continue to discharge so long as the trigger 16 is held retired or until the supply of cartridges is exhausted.

To yieldingly retain the selector-member 37 in either of its two positions above referred to, the laterally-extending part of the handle-portion 38 thereof is provided with two detent-recesses 42 and 43 respectively located diametrically opposite each other. The said detent-recesses are alternately adapted to receive the tapered upper end of an inverted cup-shaped detent-plunger 44 mounted for vertical movement in an upwardly-opening recess 45 (Fig. 8) formed in a lug 46 rigid with and laterally offsetting from the trigger-plate unit 12. The said detent-plunger is yieldingly urged upwardly by a helical detent-spring 47 resting upon the bottom of the recess 45 and thrusting upwardly against the under side of the detent-plunger 44.

Encircling the eccentric 41 of the selector-member 37 is the hub-portion 48 of a sear-actuating lever generally designated by the reference character 49. The said sear-actuating lever also includes a substantially-vertical arm 50 which is slightly curved in a longitudinal direction, as shown. Also as shown, the hub 48 is narrower (Fig. 10) than the width of the arm 50 in a direction transverse to the firearm-structure, and at its junction-point with the said arm provides a shoulder 51 against which thrusts the central transverse reach 52 (Figs. 5, 6 and 8) of a spring 53. The said spring 53 has coiled-portions respectively located on opposite sides of the hub-portion 48 of the sear-actuating lever 49, and encircling the adjacent portions of the eccentric 41. The said spring 53 is also formed with two forwardly-extending arms 54—54 resting upon the adjacent upper surface of the trigger-plate unit 12 intermediate the side-plates 18 and 19 thereof, so as to cause the said spring 53 to exert a constant-but-yielding effort to swing the sear-actuating lever 49 in a counterclockwise direction as viewed in Figs. 1, 5 and 6.

Extending around the rear portion of the sear-actuating lever 49 is a hook 55 constituting the integral rear portion of a sear-actuating bar generally designated by the reference character 56. Adjacent its forward end, the sear-actuating bar 56 is formed with a vertically-extending lug 57, the rear face of which is adapted to be engaged by a forwardly-facing actuating-shoulder 58. The said actuating-shoulder is formed adjacent the rear end of a bolt-operating slide 59 mounted for reciprocation lengthwise of the firearm structure on the right side thereof. The said bolt-operating slide corresponds generally to the member in the well-known Garand rifle and is commonly referred to in the nomenclature thereof as the "transmitting-bar."

The sear-actuating bar 56 extends longitudinally of the fire-arm-structure in a plane below the path of reciprocating movement of the bolt-operating slide 59, and is supported with capacity for reciprocating movement upon two guide-lugs 60 and 61 forming features of the receiver 10 and respectively located to the rear and front of a removable box-magazine 62 adapted to hold a supply of cartridges and to feed the same upwardly in a manner well known in the art.

The breech-bolt 29 before referred to is formed adjacent its forward end with two locking-lugs 63 and 64 respectively extending from the said

breech-bolt in diametrically-opposite directions as is shown in Fig. 2. The said breech-bolt is adapted to both reciprocate and transversely oscillate within the upper portion of the receiver 10, and the locking-lugs 63 and 64 of the said breech-bolt are respectively adapted to be oscillated into and out of engagement with forwardly-facing locking-abutments 65 and 66 respectively located in the opposite side walls of the receiver 10 adjacent the forward end thereof, as is especially well shown in Fig. 2.

Extending outwardly from the locking-lug 64 of the breech-bolt 29 is an integral actuating-lug 67 extending into a cam-recess 68 formed in the inner face of the bolt-operating slide 59. The said bolt-operating slide is formed at its rear end with a laterally-projecting finger-piece 69 by means of which the firearm may be manually operated.

For the purpose of limiting the rearward movement of the sear-actuating bar 56, the receiver 10 is formed with a forwardly-facing stop-abutment 70 which is adapted to be engaged by the rear face of the lug 57 of the said bar 56.

The cam-recess 68 in the bolt-operating slide 59 and the actuating-lug 67 of the breech-bolt 29, are so shaped as to cooperate in such manner that when the said bolt-operating slide 59 is moved rearwardly from its normal forward position, the breech-bolt 29 will be first turned so as to disengage the locking-lugs 63 and 64 respectively from the locking-abutments 65 and 66 of the receiver 10, whereupon the breech-bolt will be moved directly rearwardly. The rearward movement of the breech-bolt in a manner usual in firearms effects the extraction and ejection of the just-fired cartridge.

Upon its forward stroke, the bolt-operating slide 59 will first draw the breech-bolt 29 forwardly until the respective rear faces of the locking-lugs 63 and 64 are in registration with the locking-abutments 65 and 66, whereupon the breech-bolt 29 will be turned to again lock the breech-bolt in its forward or breech-closing position—all in a manner common in firearms.

Semiautomatic operation

When it is desired to have the firearm above described perform as a semiautomatic firearm, the selector-member 37 will be turned into the position in which it is indicated by full lines in Figs. 1, 2, 3 and 4, to thereby cause the eccentric 41 to shift the lower portion of the sear-actuating lever 49 rearwardly and thus render the said sear-actuating lever inoperative.

For purposes of making clear the semiautomatic operation of the firearm above described, let it be assumed that the hammer 23 has its primary cocking-lug 21 engaged with the primary cocking-lug 20 of the trigger 16, as is especially well shown in Fig. 1. Let it further be assumed that the firearm is loaded.

Now when the finger-piece 15 of the trigger 16 is pulled rearwardly, the primary cocking-lug 20 of the trigger will be moved forwardly out of engagement with the primary cocking-lug 21 of the hammer 23. This last-described action will permit the hammer to swing in a clockwise direction under the urge of the hammer-spring 25 and thus cause the said hammer to strike the rear end of the firing-plunger 28, and thus drive the said firing-plunger forwardly to effect the discharge of the firearm.

Now in the case of a gas-operated firearm of the Garand type, the discharge of the firearm will cause the bolt-operating slide 59 to be driven rearwardly.

The rearward movement of the bolt-operating slide 59 as just above referred to will, by virtue of the coaction between its cam-recess 68 and the actuating-lug 67 of the breech-bolt 29, first cause the said breech-bolt to be oscillated laterally to unlock the same, as previously described, and to subsequently move the said breech-bolt rearwardly to effect the extraction and ejection of the just-fired cartridge.

As the breech-bolt is moved rearwardly as above described the hammer 23 will be swung in a counterclockwise direction and should the trigger 16 still be held "pulled" during such movement, the said hammer will be caught and held in a retired position by the engagement of its secondary cocking-lug 30 by the secondary cocking-lug 31 of the secondary-sear 32. As soon, however, as the trigger is released, the hammer will be released by the said secondary-sear but will be caught by the interposition of the primary cocking-lug 20 of the trigger 16 in the path of movement of the primary cocking-lug 21 of the hammer 23.

Upon the completion of its rearward travel, the breech-bolt 29 will be drawn forwardly by the return movement of the bolt-operating slide 59, which latter will act under the urge of any suitable breech-closing spring such, for instance, as is shown in Garand's U. S. Pat. No. 1,892,141. This action will cause the said breech-bolt to pick up a fresh cartridge from the upper end of the box-magazine 62 and to insert such fresh cartridge into the cartridge-chamber of the firearm in a manner well known in the art. When in the forward travel of the breech-bolt 29, its locking-lugs 63 and 64 are brought into registry with the locking-abutments 65 and 66 of the receiver 10, the breech-bolt will be turned laterally and restored to its fully-locked position, as indicated in Figs. 1, 2 and 3, preparatory to effecting another discharge of the firearm.

Fully-automatic operation

When it is desired to have the firearm perform as a fully-automatic weapon, the selector-member 37 will be turned by means of its handle-portion 38 so that the said handle-portion occupies a forwardly-directed position, as indicated by broken lines in Fig. 4. This movement of the selector-member 37 (substantially 180°) will cause the eccentric 41 to shift the lower portion of the sear-actuating lever 49 forwardly into the position in which it is shown in Figs. 5 and 6.

Now let it be assumed that the finger-piece 15 of the trigger 16 has been drawn rearwardly to effect the initial discharge of the firearm and has been held in such retired position. Under these conditions, the initial discharge of the firearm will cause the breech-bolt 29 to move rearwardly and to rock the hammer 23 in a counterclockwise direction, and cause the secondary cocking-lug 30 of the said hammer to be caught by the secondary cocking-lug 31 of the secondary-sear 32, as is shown in Fig. 5.

Now when the breech-bolt 29 and the bolt-operating slide 59 again move forwardly, the breech-bolt will be brought into its fully-closed and locked position, and the firearm will be thereby reloaded, before the actuating-shoulder 58 of the bolt-operating slide 59 has moved into engagement with the rear face of the lug 57 of the sear-actuating bar 56. The conditions just described are illustrated in Fig. 5.

When the parts have reached the relative positions in which they are shown in Fig. 5, the bolt-operating slide **59** will continue its forward movement until it is in the position shown in Fig. 6. This latter movement will cause the actuating-shoulder **58** to strike the rear face of the lug **57** of the sear-actuating bar **56**, and thus impart a forward movement to the said bar. The described forward movement of the sear-actuating bar **56** will cause the hook **55** of the latter to rock the sear-actuating lever **49** in a clockwise direction against the tension of the spring **53**.

When moved as just above described, the sear-actuating lever **49** will, in turn, engage its forward face with the tail **33** of the secondary-sear **32** to rock the said secondary-sear in a counterclockwise direction. The counterclockwise movement of the secondary-sear **32** will disengage its secondary cocking-lug **31** from the path of movement of the secondary cocking-lug **30** of the hammer **23**, so that the parts referred to will assume substantially the positions in which they are shown in Fig. 6. Thus, the hammer **23** will be released to effect the discharge of the firearm, following which latter the parts will again assume the positions in which they are shown in Fig. 5 and then (provided the trigger is held "pulled") automatically pass through the phase illustrated in Fig. 6 to again effect the discharge of the firearm.

The features **58, 57, 56, 55** and **49** provide a lost-motion connection between the bolt-operating slide **59** and the secondary-sear **32**.

Thus, by appropriately spacing the elements, a time-lag may be had with respect to the interval between the full-closing and the locking of the breech-bolt **29** and the discharge of the firearm when the mechanism thereof is set for full automatic operation.

For instance, by varying the length of stroke of the bolt-operating slide from the position in which it has effected the full-locking of the breech-bolt **29** (Fig. 5) and the position in which it has moved the sear-actuating bar **56** forwardly sufficiently to retire the secondary-sear **32** (Fig. 6), the rate of fire of the firearm may be varied over a wide range. Thus, if the actuating-shoulder **58** of the bolt-operating slide **59** is so positioned as to cause the sear-actuating bar **56** to release the secondary-sear **32** substantially at the same instant that the breech-bolt is closed and locked, the rate of fire will be relatively rapid. On the other hand, should the actuating-shoulder **58** be so positioned as to cause the release of the secondary-sear **32** after the bolt-operating slide **59** has moved forwardly materially past the position in which it effects the locking of the breech-bolt **29**, then the rate of discharge of the firearm will be relatively slower than that referred to under the first set of conditions.

The invention may be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. A self-loading firearm, including in combination: a receiver; a trigger-plate unit secured to the lower portion of the said receiver; a breech-bolt movable in the said receiver; a bolt-operating slide mounted for reciprocation substantially lengthwise of the firearm adjacent to the said receiver and provided with a forwardly-facing abutment; an actuating-bar also mounted for reciprocation substantially lengthwise of the firearm adjacent the said receiver and provided adjacent its forward end with a rearwardly-abutment engageable by the forwardly-facing abutment of the said bolt-operating slide for being moved thereby, the said actuating-bar being provided adjacent its rear end with a forwardly-facing abutment; connecting-means operatively interconnecting the said bolt-operating slide and the said breech-bolt; a pivotal firing-member having a primary cocking-abutment and a secondary cocking-abutment; a trigger having a primary cocking-abutment releasably engageable with the primary cocking-abutment of the said firing-member; a secondary sear carried by and pivotally connected to the said trigger and having a secondary cocking-abutment engageable with the secondary cocking-abutment of said firing-member; a selector-member mounted for rotation in the said trigger-plate unit about an axis which extends substantially transversely of the said unit and at a location beneath the said secondary sear and the forwardly-facing abutment of the said actuating-bar, the said selector-member having an eccentric portion and also having a manually-operable portion projecting from the said trigger-plate unit into position to be manually operated from the exterior of the firearm; a pivotal sear-actuating member mounted upon the eccentric portion of the said selector-member and extending vertically therefrom past the said secondary sear and upwardly into position to be engaged by the forwardly-facing abutment of the said actuating-bar, the said sear-actuating member also having a portion intermediate its respective opposite ends which is engageable with the said secondary sear to release the same; and spring-means urging the upper portion of the said sear-actuating member rearwardly; the said selector-member being constructed and arranged to shift the lower portion of the said sear-actuating member forwardly and backwardly with respect to the said secondary sear into and out of position for effecting the release of the latter.

2. A self-loading firearm, including in combination: a receiver; a trigger-plate unit secured to the lower portion of the said receiver; a breech-bolt movable in the said receiver; a bolt-operating slide mounted for reciprocation substantially lengthwise of the firearm adjacent to the said receiver and provided with a forwardly-facing abutment; an actuating-bar also mounted for reciprocation substantially lengthwise of the firearm adjacent the said receiver and provided adjacent its forward end with a rearwardly-facing abutment engageable by the forwardly-facing abutment of the said bolt-operating slide for being moved thereby, the said actuating-bar also being provided adjacent its rear end with a forwardly-facing abutment; connecting-means operatively interconnecting the said bolt-operating slide and the said breech-bolt; a hammer pivotally mounted in the said trigger-plate unit and having a primary cocking-abutment at its front and a secondary cocking-abutment at its rear; a trigger pivoted to the said trigger-plate unit and having a primary cocking-abutment releasably engageable with the primary cocking-abutment at the front of the said firing-member; a secondary sear carried by and pivotally connected to and projecting rearwardly from the

said trigger and having a secondary cocking-abutment engageable with the rear secondary cocking-abutment of the said firing-member; a selector-member mounted for rotation in the said trigger-plate unit about an axis which extends substantially transversely of the said unit and at a location beneath the said secondary sear and the forwardly-facing abutment of the said actuating-bar, the said selector-member having an eccentric portion and also having a manually-operable portion projecting from the said trigger-plate unit into position to be manually operated from the exterior of the firearm; a pivotal sear-actuating member mounted upon the eccentric portion of the said selector-member and extending vertically therefrom past the said secondary sear and upwardly into position to be engaged by the forwardly-facing abutment of the said actuating-bar, the said sear-actuating member also having a portion intermediate its respective opposite ends which is engageable with the said secondary sear to release the same; and spring-means urging the upper portion of the said sear-actuating member rearwardly; the said selector-member being constructed and arranged to shift the lower portion of the said sear-actuating member forwardly and backwardly with respect

to the said secondary sear into and out of position for effecting the release of the latter.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
933,254	Knous	Sept. 7, 1909
1,103,228	Swebilius et al.	July 14, 1914
1,308,016	Clark	June 24, 1919
1,333,498	Lang	Mar. 9, 1920
1,430,662	Lewis	Oct. 3, 1922
1,550,757	Swebilius	Aug. 25, 1925
1,892,141	Garand	Dec. 27, 1932
2,029,839	Sidgley et al.	Feb. 4, 1936
2,215,470	Johnson	Sept. 24, 1940
2,356,727	Reising	Aug. 22, 1944
2,388,443	Ruger	Nov. 6, 1945

FOREIGN PATENTS

Number	Country	Date
104,493	Austria	Oct. 25, 1926
306,328	Germany	Sept. 21, 1920