J. D. PEDERSEN.

FIREARM.

APPLICATION FILED DEC. 13, 1919.

1,410,270. Patented Mar. 21, 1922.

Fig. 1.

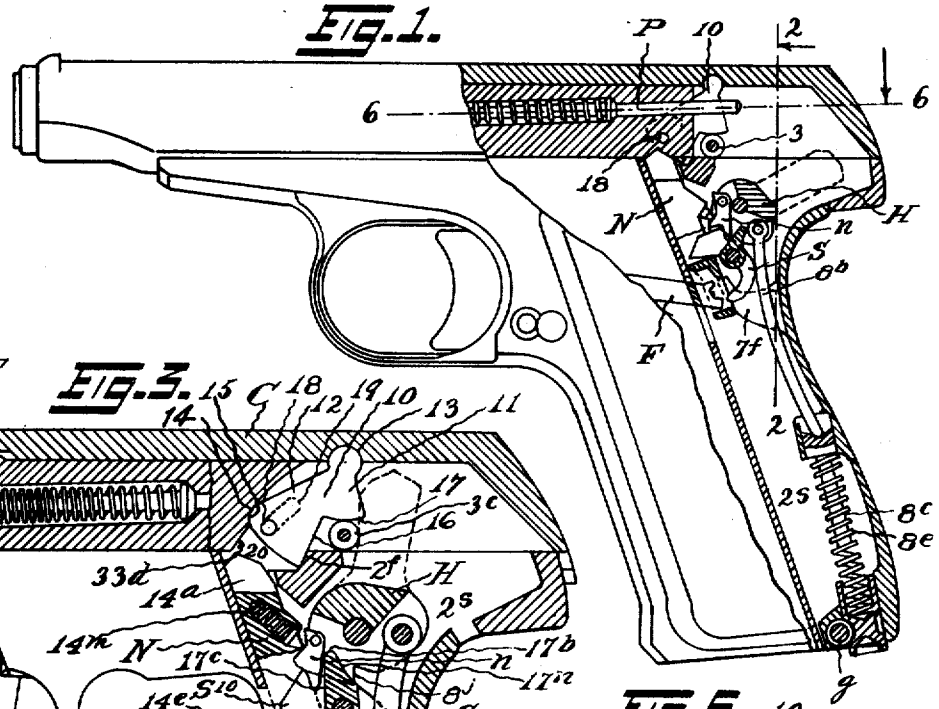


Fig. 3.

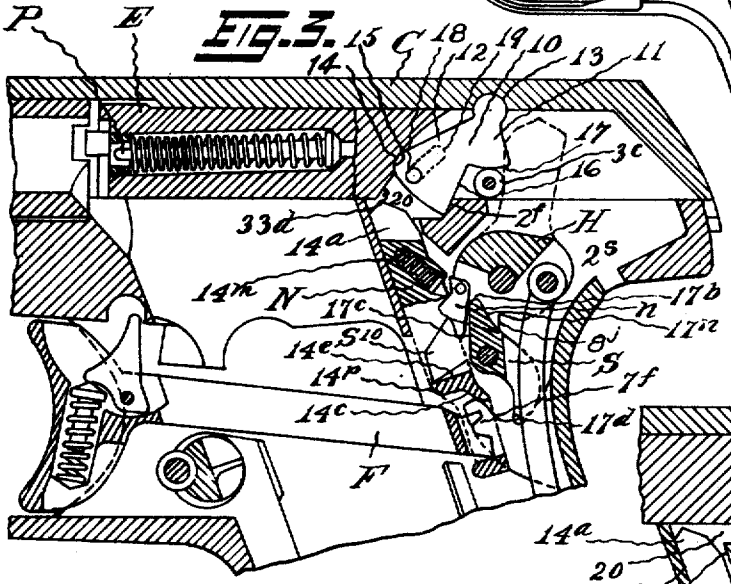


Fig. 5.

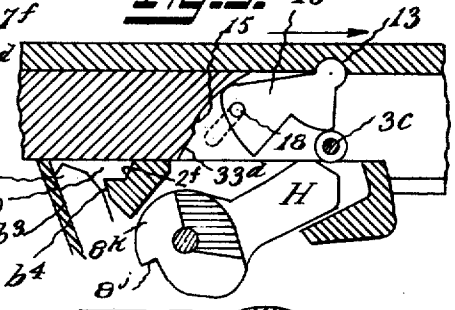


Fig. 4.

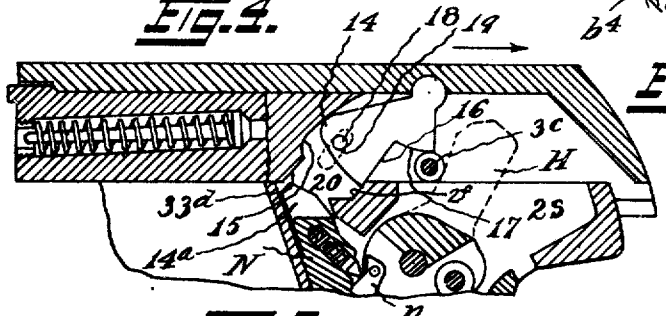


Fig. 2.

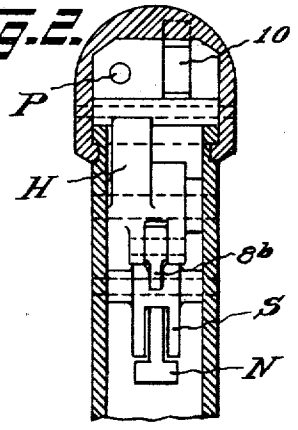
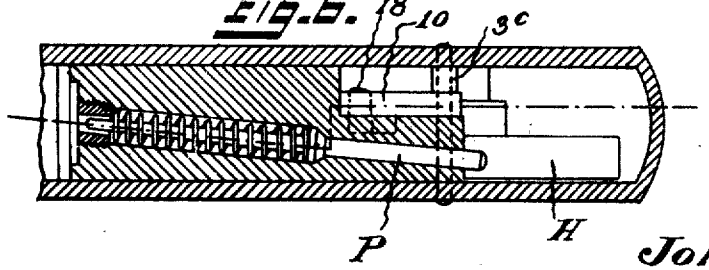


Fig. 6.



Inventor:
John D. Pedersen,
By his Att'y, F. W. Richards.

UNITED STATES PATENT OFFICE.

JOHN D. PEDERSEN, OF JACKSON, WYOMING.

FIREARM.

1,410,270. Specification of Letters Patent. Patented Mar. 21, 1922.

Application filed December 13, 1919. Serial No. 344,678.

To all whom it may concern:

Be it known that I, JOHN D. PEDERSEN, a citizen of the United States, residing in Jackson, in the county of Lincoln and State of Wyoming, have invented certain new and useful Improvements in Firearms, of which the following is a specification.

This application, as regards some of the principal features thereof, is in the nature of an improvement in the breechblock mechanism which is set forth in my Patent No. 1,348,733, dated August 3, 1920, and granted on my copending (renewal) application Serial No. 311,689, filed July 17th, 1919, to which reference may be had.

One class of firearms to which my present improvements are applicable includes auto-loading pistols.

An improved auto-loading pistol of this kind is described in my said patent. Therefore, for convenience of illustration, I have herein illustrated my present improvements as arranged and applied to the particular kind of auto-loading pistol which is shown in the drawings of said patent, to which reference may be had.

One object of the present improvements is to furnish for use in firearms and especially for use in auto-loading pistols an improved slide-and-block mechanism in which the breechblock transmits rearward movement to the slide and is retarded relatively to the slide during an early part of the rearward stroke of the slide, and during the shell-extracting period, without requiring the breechblock to have a compound movement relative to the slide. A further object is to provide an abutment member coactive with and as between the slide, breechblock and frame, and adapted and arranged for timing and controlling said breechblock movements. Other objects and advantages are indicated, or pointed out in the course of the following description.

An embodiment of my invention is illustrated in the accompanying drawings in which—

Figure 1 is a side view, partly broken away to show the details, of a pistol provided with my slide-and-breechblock mechanism, the slide and breechblock being in forward or normal position, and the abutment member being in unlocking or downward position and in engagement with the abutment face of the frame of the pistol for retarding the breechblock in rearward action, the firing member or hammer being in firing position, and the slide being locked in forward or normal position and against rearward movement by a slidable member or controller, which also locks the sear member and firing member or hammer in firing position, the slidable member or controller being blocked in this locking or upward position by a grip-compressible or grip-operable member which is in normal position or position of safety.

Fig. 2 is a detail sectional view, on a larger scale than Fig. 1, on the line 2—2 of Fig. 1, of a pistol provided with my slide-and-breech-block mechanism, looking in the direction of the arrow, the firing member or hammer being shown in full.

Fig. 3 is a fragmentary side view, on a larger scale than Fig. 1, showing the details of a pistol provided with my slide-and-breech-block mechanism, the slide and breechblock being moved somewhat rearwardly, the abutment member having received the thrust or shock of the breechblock in its rearward movement but still being in unlocking or downward position and in engagement with the abutment-face of the frame of the pistol, the firing member or hammer being moved somewhat from fired position to firing or cocked position, the slidable member or controller being in unlocking or downward position, and the grip-compressible or grip-operable member, although in course of movement to normal position or position of safety after grip-compression, does not yet block the slidable member or controller which is not yet moved to locking or upward position.

Fig. 4 is a detail sectional view of a pistol provided with my slide-and-breech-block mechanism showing the slide moved somewhat more rearwardly and the firing member or hammer moved somewhat further towards firing or cocked position than in Fig. 3, the slidable member or controller being still in unlocking or downward position, the

abutment member being still in engagement with the said abutment face of the frame of the pistol, but just prior to disengagement therefrom and moved to locking or upward position, and the grip-compressible or grip-operable member, although in course of movement to normal position or position of safety after grip-compression, does not yet block the slidable member or controller, which is not yet moved to locking or upward position.

Fig. 5 is a fragmentary sectional detail side view of a pistol provided with my slide-and-breechblock mechanism, showing the firing member or hammer moved to firing or cocked position by rearward movement of the slide, and the abutment member disengaged from the said abutment-face of the frame of the pistol and in upward position, or position for locking the breechblock to the slide.

Fig. 6 is a fragmentary detail plan view of a pistol provided with my slide-and-breechblock mechanism showing the slide, the breechblock, the firing-pin offset in the breechblock, the abutment member and the firing member or hammer.

Similar reference characters or numerals refer to similar parts throughout the several views.

The pistol in the present embodiment of my invention is provided with the slide C, and with the breechblock E carrying the firing-pin P. The force of the powder gases is first exerted upon the breechblock E to move it rearwardly, and is transmitted by the breechblock E to the slide C to move the slide rearwardly. The breechblock E is retarded in its rearward movement by engagement of the abutment member 10 with the abutment-face 2^c of the frame of the pistol and rearward movement of the breechblock is transmitted to the slide, and during said transmission the breechblock is retarded relative to the slide and locked to the slide C and continues to move rearwardly with the slide C until the slide has reached its most rearward or retracted position.

The abutment member 10, as shown in the drawings comprises a body portion 11 and a wing portion 12, the body portion 11 being pivotally arranged at its upper end in the slide C, which is recessed, as at 13, or otherwise suitably arranged to allow pivotal movement of the abutment member. The wing portion 12 is provided with a cam face 14 which engages a co-acting cam-face 15 on the breechblock E, and is provided with a straight face 16 which engages the abutment-face 2^f of the frame of the pistol. The body portion 11 is provided with a face 17 which engages the roller 3^e carried by the slide C, for retaining the abutment member 10, in the recess 13, but the body portion 11 may be pivotally attached at its upper end to the slide C. The wing portion 12 is provided with a pin 18 which works or travels in a slot 19 formed in the breechblock E.

The firing member or hammer H is pivotally supported on the grip-stock of the pistol and is movable to firing position and to fired position. The firing member or hammer H is moved from fired position to firing position or cocked position by engagement or contact of the roller 3^e of the slide with the forward face of the firing member or hammer as the slide is moved rearwardly to its most rearward position; or the firing member or hammer may be moved to firing position or cocked by a suitable face on the slide which engages or contacts with the firing member or hammer when the slide is moved to rearward position.

The firing member or hammer H is provided with a firing notch or cock-notch 8^j, and with an eccentric cam face 8^k, the grip-stock of the pistol being bored out or otherwise suitably cut away, as at 2^s to receive the firing member or hammer.

The slidable member or controller N is received in a suitable opening 20 in the frame of the pistol, and is movable upwardly and downwardly between suitable guide-faces b^3 and b^4 formed on the frame of the pistol. The slidable member or controller is provided with an upper end or point 14^a which is engageable with the face 33^d on the breech block. The slidable member or controller N is provided with a shoulder 14^p having upper engaging surfaces 14^e, and having bottom-sides or bottom-faces 14^c. An actuator 14^m is provided to move the slidable member or controller upwardly.

The lever member n is pivotally attached to the hammer H and is provided with a face which engages the actuator 14^m, and is provided with a point which engages the sear member S.

The sear member S is pivotally supported on the grip-stock of the pistol and is provided with an arm S^{10} which is engageable with the upper surfaces 14^e of the shoulder 14^p of the slidable member or controller N, and provided with a locking-shoulder 17^b which is engageable with the firing-notch or cock-notch 8^j of the firing member or hammer H, and provided with a face 17^n which is engageable with the eccentric cam face 8^k of the firing member or hammer. A lever arm 17^c is provided on the sear member S which engages the point of the lever member n, and the sear member is provided with an end-face 17^d.

The trigger member F is movable forwardly by means not shown, and by pull thereon is movable rearwardly for engagement with the sear member S.

The grip-operable member G is pivotally connected at its lower end to the grip-stock of the pistol, preferably in the manner

described and shown in my co-pending application Serial No. 311,689, filed July 17th, 1919, and is engageable at its upper end with the frame of the pistol when in normal position or position of safety. The grip-operable or grip-safety member G is yieldable or hand-compressible and closes the space 2^s in the grip-stock, and is releasable from engagement with the frame of the pistol by grip-compression. The grip-operable or grip-safety member F is provided with locking-prongs 7^t which are engageable with the bottom-sides or bottom-faces 14^c of the slidable member or controller N, when the grip-operable or grip-safety member G is in normal position or position of safety, to block the slidable member or controller in locking or upward position, the grip-operable or grip-safety member G being releasable from this engagement by grip-compression.

The spring 8^e is seatably connected to the grip-operable or grip-safety member G preferably in the manner described and shown in my said patent. The spring 8^e abuts a plunger 8^c slidably carried by the grip-operable or grip-safety member G. A rod 8^b is pivotally attached at its upper end to the firing member or hammer and is seated at its lower end in the plunger 8^c. The spring 8^e moves the firing member or hammer H to fired position, and affords grip-compression of the grip-operable or grip-safety member G, and returns the grip-operable or grip-safety member to engagement with the frame of the pistol, or to normal or position of safety, after grip-compression.

In operation, the firing member or hammer H being in firing position, and the slidable member or controller N being in locking or upward position for preventing rearward movement of the slide C, (Fig. 1) after grip-compression of the grip-operable or grip-safety member G releases the locking-prongs 7^t thereof from engagement with the bottom sides or bottom-faces 14^c of the slidable member or controller N and permits movement of the slidable member or controller to unlocking or downward position, pull upon the trigger member F, while the grip-operable or grip-safety member is grip-compressed, moves the sear member S to release the firing member or hammer H for movement to fired position. As the sear member S is moved to release the firing member or hammer H, the arm S^{10} of the sear member engages or bears down upon the upper surfaces 14^e of the shoulder of the slidable member or controller N, and thereby moves the slidable member or controller to unlocking or downward position, Fig. 3. The firing member or hammer actuated by the spring 8^e engages or comes into contact with the firing-pin P and the pistol is discharged.

The breechblock E, moved by the powder gases is carried rearwardly in the slide C in engagement with the abutment member 10. The face 16 of the abutment member being in engagement with the abutment face 2^f of the frame of the pistol, the breechblock E is thereby retarded in its rearward movement.

As the breechblock E continues to move rearwardly under the influence of the powder gases, the abutment member 10, due to the engagement of the face 16 thereof with the abutment-face 2^f of the frame of the pistol, transmits rearward movement to the slide. The abutment member 10 oscillates or is raised as shown in Fig. 4, and the cam face 14 of the abutment member engaging the co-acting face 15 of the breechblock the abutment member is moved until the face 16 thereof clears the abutment face 2^f of the frame and is freed from engagement therewith, and during this movement of the abutment member, and during transmission of rearward movement of the breech-block to the slide, the breechblock is retarded relative to the slide. The pin 18 having moved or travelled upwardly in the slot 19, through the co-action of the pin 18, the cam face 14, the co-acting cam face 15, and the face 17 which engages or rides on the roller 3^c, the breechblock E is locked in the slide C, and is carried rearwardly with the slide C until the slide reaches its most rearward or retracted position, Fig. 5. As the roller 3^c travels rearwardly with the slide C it engages or comes into contact with the front-face of the firing member or hammer H, and riding over the firing member or hammer moves or forces it rearwardly and downwardly against the compression of the spring 8^e until the firing member or hammer is locked in firing or cocked position by the sear member S. In movement to firing or cocked position the firing member or hammer H by engagement of the eccentric cam face 8^k thereof with the face 17^n of the sear member S moves the sear member downwardly or in direction to disengage or move upwardly the arm S^{10} thereof from the upper surfaces 14^e of the shoulder 14^p of the slidable member or controller N and permits movement of the slidable member or controller to locking or upward position. The locking shoulder 17^b of the sear member engages the firing-notch or cock-notch 8^j of the firing member or hammer to lock the firing member or hammer in firing or cocked position. The lever-arm 17^c of the sear member being in engagement with the before mentioned point of the lever-member n and the before mentioned face of the lever-member n being in engagement with the actuator 14^m, the slidable member or controller N is thereby moved upwardly or to position

for engaging the slide C to lock the same against rearward movement, and to lock as well the sear member S and the firing member or hammer H in firing position. Grip-compression of the grip-operable or grip-safety member G being released, the grip-operable or grip-safety member is returned to engagement with the frame of the pistol or to normal position or position of safety, by the spring 8^e, while the locking-prongs 7^f move into engagement with the bottom-sides or bottom-faces 14^c of the slidable member or controller N and block the slidable member or controller in locking or upward position. The breechblock E still being locked to the slide C is moved forwardly with the slide by spring means of the slide which are not shown, until the breechblock and slide are in their forward or normal position.

Having thus described my invention, I claim,

1. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, a breechblock movable rearwardly and comprising a firing-pin, retarding means on said frame, means on said slide engaging said breechblock and engaging said retarding means for retarding rearward movement of said breechblock and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin, slidable means engageable with said slide, sear means engageable with said firing member, means for moving said slidable means in direction for engaging said slide to lock said slide against rearward movement, and lock said sear means and firing member in firing position, means for moving said slidable means in direction reverse to the first mentioned direction when said firing member is moved to fired position, spring means for moving said firing member to fired position, a grip-compressible member engageable with said frame and engageable with said slidable means when in position of safety, to block said slidable means in said locking position, and releasable from both said engagements by grip-compression, and trigger means engageable, when said grip-compressible member is grip-compressed, with said sear means for moving the sear means to release said firing member for movement to fired position.

2. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, retarding means on said frame, a breechblock initially movable rearwardly relative to rearward movement of said slide, means on said slide and engaging said breechblock and engaging said retarding means for retarding initial rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin, slidable means engageable with said slide, sear means engageable with said firing member, means for moving said slidable means in direction for engaging said slide to lock said slide against rearward movement, and lock said sear means and firing member in firing position, means for moving said slidable means in direction reverse to the first mentioned direction when said firing member is moved to fired position, spring means for moving said firing member to fired position, a grip-compressible member engageable with said frame and engageable with said slidable means when in position of safety, to block said slidable means in said locking position, and releasable from both said engagements by grip-compression, and trigger means engageable, when said grip-compressible member is grip-compressed, with said sear means, for moving the sear means to release said firing member for movement to fired position.

3. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and comprising a firing-pin, retarding means on said frame, means on said slide engaging said breechblock and engaging said retarding means, for retarding rearward movement of said breechblock when so moved by powder gases, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and slide, a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin, slidable means engageable with said slide, sear means engageable with said firing member and engageable with said slidable means, means for moving said slidable means in direction for engaging said slide to lock said slide against rearward movement, and lock said sear means

and firing member in firing position, means for moving said slidable means in direction reverse to the first mentioned direction when said firing member is moved to fired position, a grip-operable member engageable with said frame and engageable with said slidable means when in position of safety, to block said slidable means in said locking position, and releasable from both said engagements by grip-compression, spring means for moving said firing member to fired position, and affording grip-compression of the grip-operable member, and for returning the grip-operable member to position of safety after grip-compression, and trigger means engageable, when said grip-operable member is grip-compressed, with said sear means, for moving the sear means to release said firing member for movement to fired position.

4. In a firearm, a slide movable rearwardly and forwardly on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and comprising a firing-pin, retarding means on said frame, pivotal means on said slide engaging said breechblock and engaging said retarding means, for retarding rearward movement of said breechblock when so moved by powder gases, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and slide, a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin, slidable means engageable with said slide, sear means engageable with said firing member, means for moving said slidable means in direction for engaging said slide to lock said slide against rearward movement, and lock said sear means and firing member in firing position, means for moving said slidable means in direction reverse to the first mentioned direction when said firing member is moved to fired position, a grip-operable member engageable with said frame and engageable with said slidable means when in position of safety, to block said slidable means in said locking position, and releasable from both said engagements by grip-compression, spring means for moving said firing member to fired position, and affording grip-compression of the grip-operable member, and for returning the grip-operable member to position of safety after grip-compression, and trigger means engageable, when said grip-operable member is grip-compressed, with said sear means for moving the sear means to release said firing member for movement to fired position.

5. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, an abutment on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide, an abutment member on said slide provided with faces engaging said breechblock and engaging said abutment on said frame, for retarding rearward movement of said breechblock, when so moved by powder gases, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and slide, a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin, slidable means engageable with said slide, sear means engageable with said firing-member, means for moving said slidable means in direction for engaging said slide to lock said slide against rearward movement, and lock said sear means and firing member in firing position, means for moving said slidable means in direction reverse to the first mentioned direction when said firing member is moved to fired position, a grip-operable member engageable with said frame and engageable with said slidable means when in position of safety, to block said slidable means in said locking position and releasable from both said engagements by grip-compression, spring means for moving said firing member to fired position, and affording grip-compression of the grip-operable member and for returning the grip-operable member to position of safety after grip-compression, and trigger means engageable, when said grip-operable member is grip-compressed, with said sear means for moving the sear means to release said firing member for movement to fired position.

6. In a firearm, in combination, a frame of said firearm, an abutment face on said frame, a slide movable rearwardly and forwardly on said frame and provided with a slot and with a roller member, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and provided with a co-acting cam face, and provided with a face for engaging said abutment face of the frame, and comprising a firing pin, an abutment member in said slide provided with a cam face engaging said co-acting cam face of the breechblock, and provided with a face engaging said abutment face of the frame, and provided with a face engaging said roller member and a pin engaging said slot for the slide, a firing member movable to firing position by engagement with said roller member of the slide

when the slide is moved rearwardly, and movable to fired position, and engageable with said firing-pin, a slidable controller movable upwardly and downwardly and provided with an end for engaging said slide, a sear member engageable with said firing member and engageable with said slidable controller, means for moving said slidable controller upwardly to engage said slide to lock the slide against rearward movement, and lock said sear member and firing member in firing position, means for moving said slidable controller downwardly from said locking position, a grip-safety member pivotally connected at the lower end thereof to said grip-stock, and engageable with said slidable controller and with said frame when in position of safety to block the slidable controller in said upward position, and releasable by grip-compression from both said engagements, spring means for moving said firing member to fired position, and affording grip-compression of the grip-safety member, and for returning the grip-safety member to position of safety after grip-compression, and a trigger member engageable, when said grip-safety member is grip-compressed, with said sear member for moving the sear member to release said firing member for movement to fired position.

7. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, a breechblock movable rearwardly and comprising a firing-pin, means for retarding rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

8. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, a breechblock movable rearwardly and comprising a firing pin, means for retarding rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

9. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, a breechblock initially movable rearwardly relative to rearward movement of said slide and comprising a firing-pin, means for retarding initial rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

10. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, a breechblock initially movable rearwardly relative to rearward movement of said slide and comprising a firing-pin, means for retarding initial rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

11. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, retarding means on said frame, a breechblock movable rearwardly and comprising a firing-pin, means on said slide engaging said breechblock and engaging said retarding means on said frame, for retarding rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide after retardation of rearward movement of said breechblock to said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

12. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, retarding means on said frame, a breechblock movable rearwardly and comprising a firing-pin, means on said slide engaging said breechblock and engaging said retarding means on said frame, for retarding rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said frame after retardation of rearward movement of said breechblock to said slide, and for providing subsequent concurrent

movement of said breechblock and said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

13. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, retarding means on said frame, a breechblock initially movable rearwardly relative to rearward movement of said slide and comprising a firing pin, means on said slide engaging said breechblock and engaging said retarding means, for retarding initial rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

14. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, retarding means on said frame, a breechblock initially movable rearwardly relative to rearward movement of said slide and comprising a firing-pin, means on said slide engaging said breechblock and engaging said retarding means, for retarding initial rearward movement of said breechblock, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breech block to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

15. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, retarding means on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and comprising a firing-pin, means on said slide engaging said breechblock and engaging said retarding means, for retarding rearward movement of said breechblock when so moved by powder gases, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

16. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame, retarding means on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide, means on said slide engaging said breechblock and engaging said retarding means, for retarding rearward movement of said breechblock when so moved by powder gases, and for transmitting rearward movement from said breechblock to said slide, and for providing retardation of said breechblock relative to said slide during transmission of rearward movement of said breechblock to said slide, and for providing subsequent concurrent movement of said breechblock and said slide, and a firing member movable to firing position by rearward movement of said slide and movable to fired position and engageable with said firing-pin.

17. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame, an abutment face on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and provided with a co-acting cam-face and provided with a slot, an abutment member operatively arranged in said slide and provided with a cam-face engaging said co-acting cam-face of the breechblock, and provided with a face engaging said abutment face of the frame, and provided with a pin engaging said slot of the breechblock.

18. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly on said frame and provided with a roller member, an abutment face on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and provided with a co-acting cam-face and provided with a slot, and comprising a firing-pin, an abutment member operatively arranged in said slide and provided with a cam-face engaging said co-acting cam-face of the breechblock, and provided with a face engaging said abutment face of the frame, and provided with a face engaging said roller member of the slide, and provided with a pin engaging said slot of the breechblock, and a firing member engageable with said roller member of the slide for rearward movement thereby to firing position, and movable to fired position and engageable with said firing-pin.

19. In a firearm, in combination, a frame of said firearm, a slide movable rearwardly and forwardly on said frame and provided with a roller member, an abutment face on said frame, a breechblock movable rearwardly by powder gases prior to rearward movement of said slide and provided with a co-acting cam-face and provided with a slot, and comprising a firing-pin, an abutment member operatively arranged in said slide

and provided with a cam-face engaging said co-acting cam-face of the breechblock, and provided with a face engaging said abutment face of the frame, and provided with a face engaging said roller member of the slide, and provided with a pin engaging said slot of the breechblock, and a firing member engageable with said roller member of the slide for rearward movement thereby to firing position, and movable to fired position and engageable with said firing pin.

JOHN D. PEDERSEN.

Witnesses:
FRANCIS H. RICHARDS,
GEORGE J. BARTELS.