March 24, 1936. H. DELACRE 2,035,303

AUTOMATIC QUICK FIRING ARM

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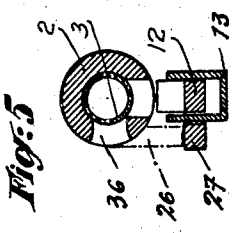


Fig:5

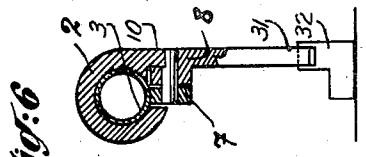


Fig:6

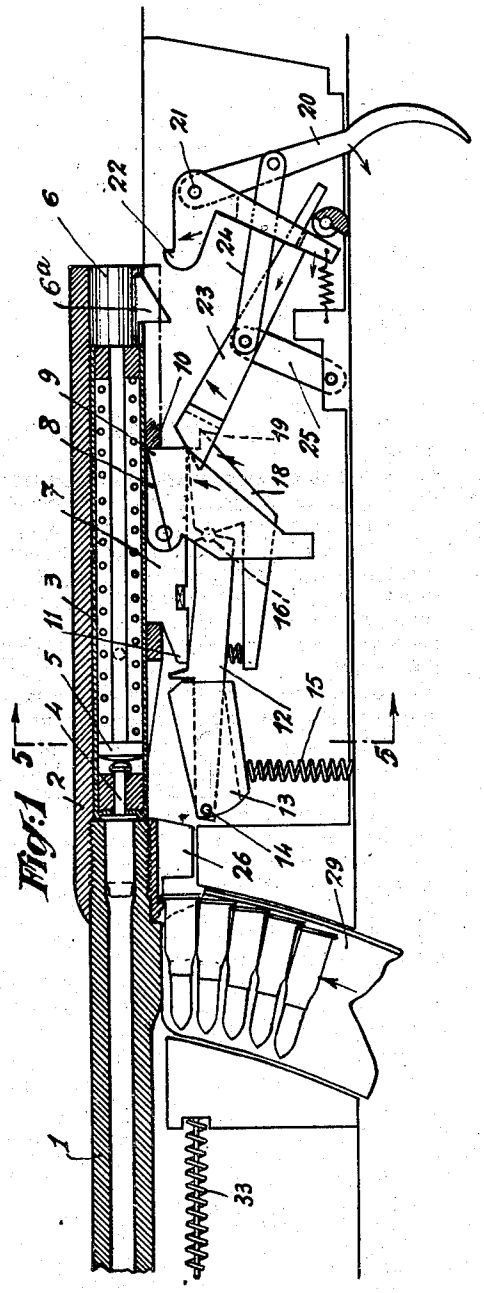


Fig:1

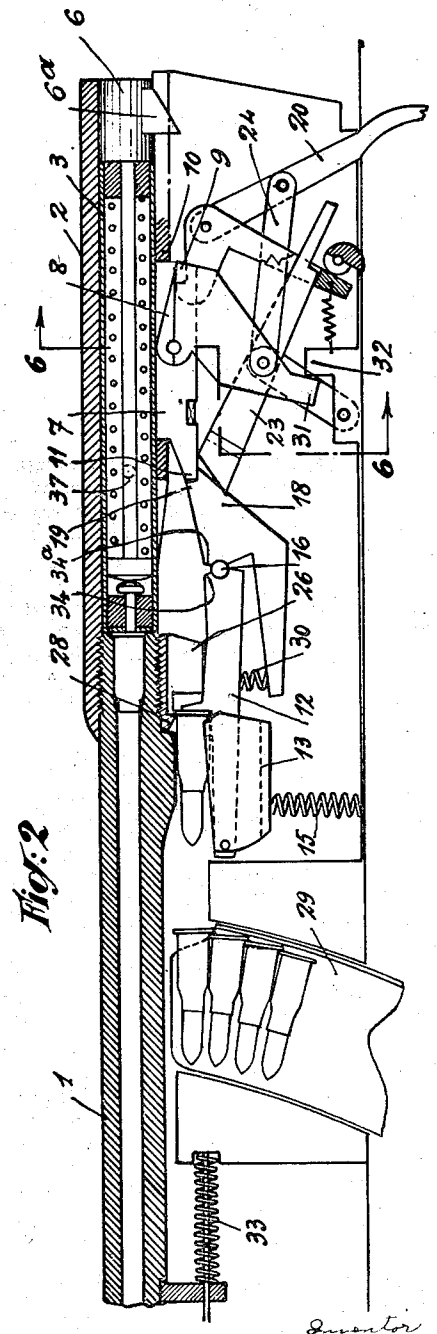


Fig:2

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AUTOMATIC QUICK FIRING ARM

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Fig: 7

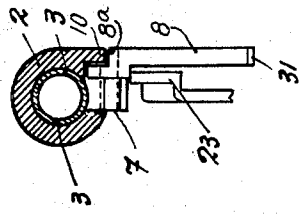


Fig: 8

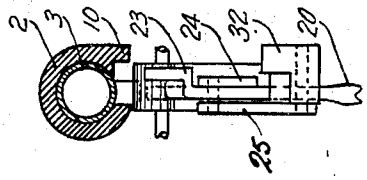


Fig: 3

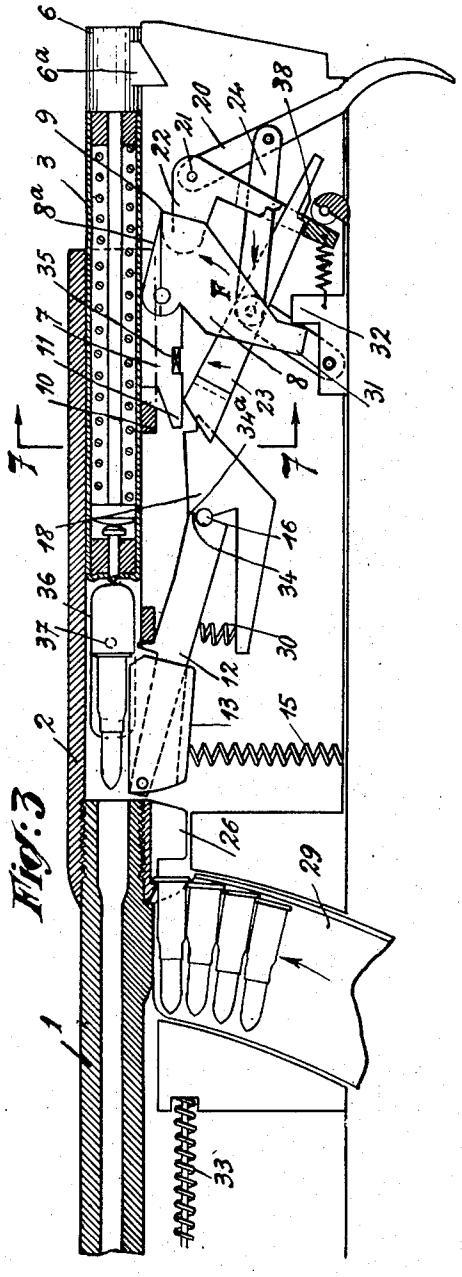
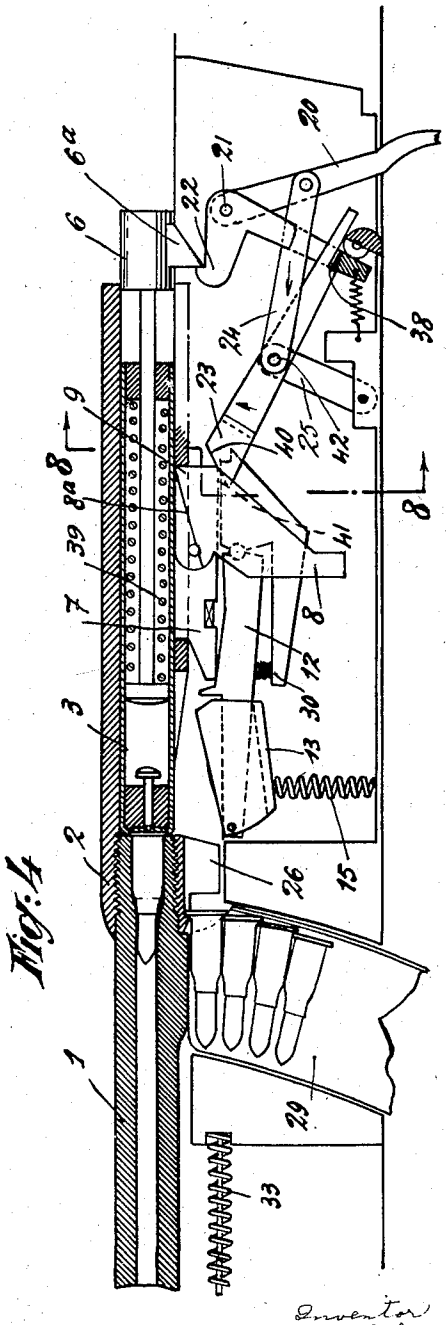


Fig: 4



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Fig: 9

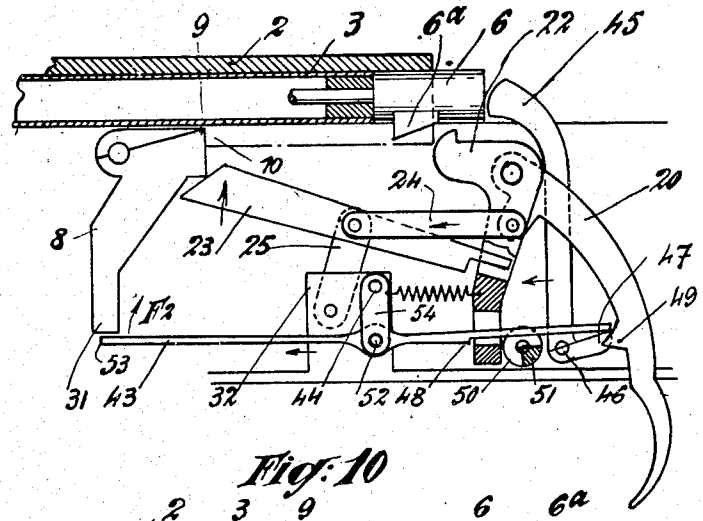


Fig: 10

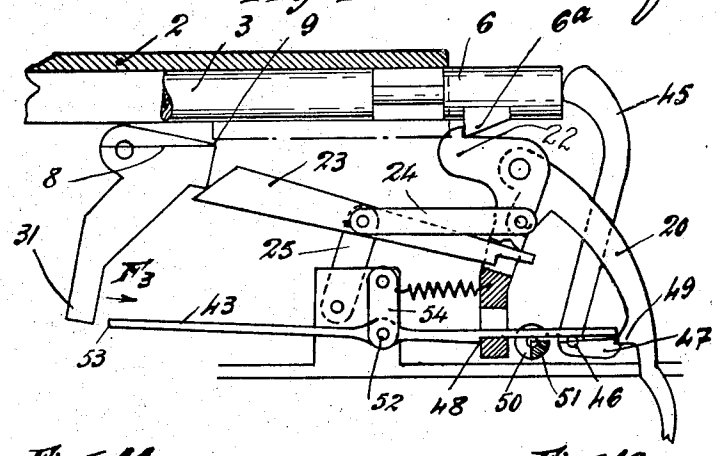


Fig: 11

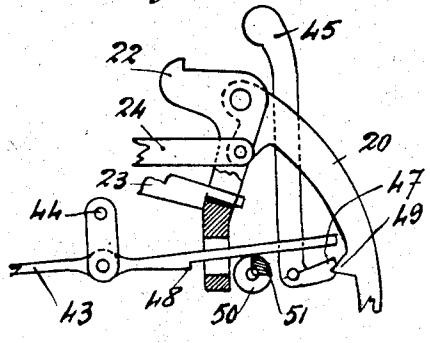
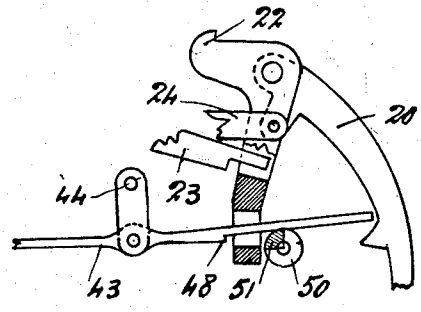


Fig: 12



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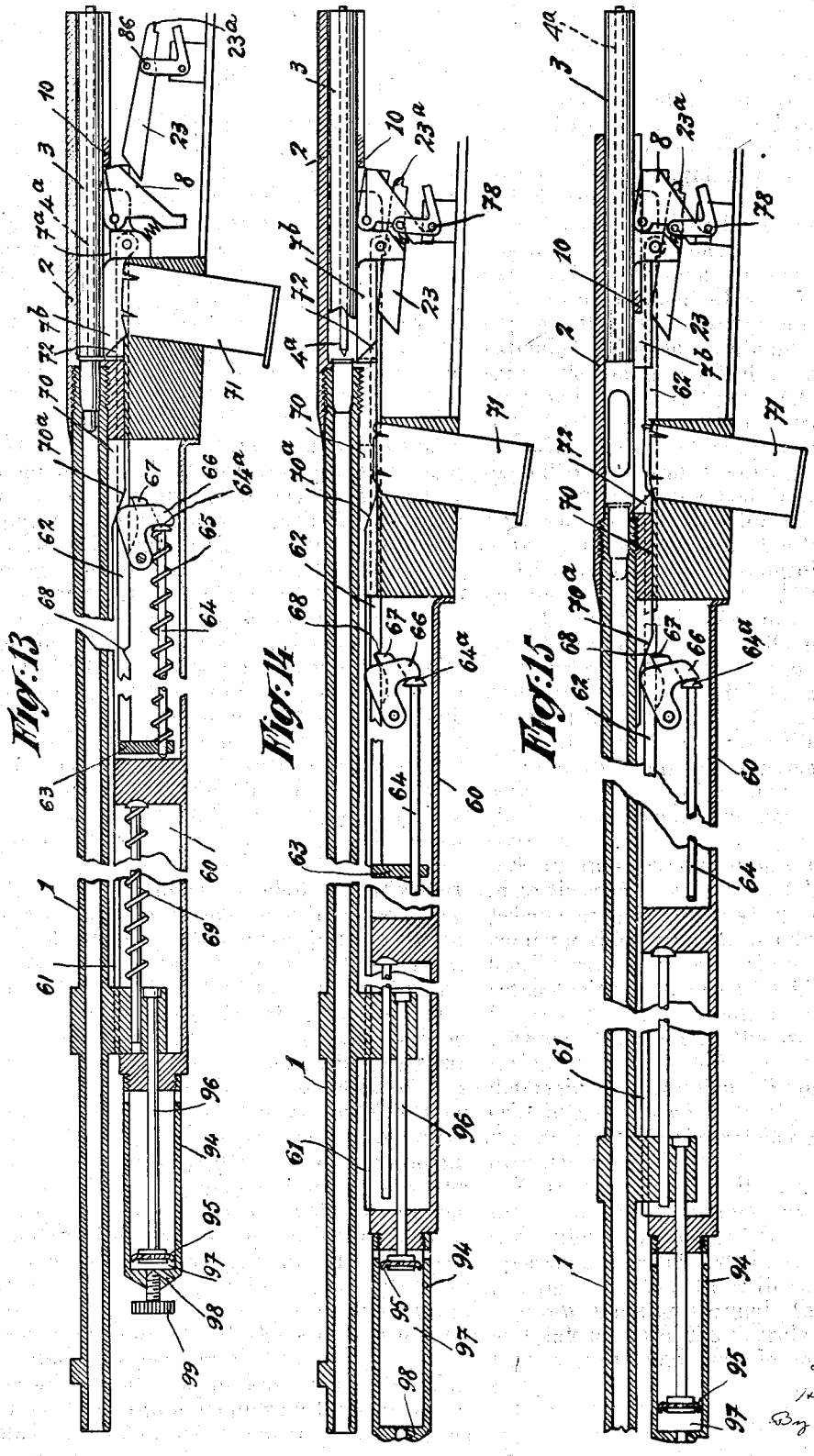


Fig: 13

Fig: 14

Fig: 15

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AUTOMATIC QUICK FIRING ARM

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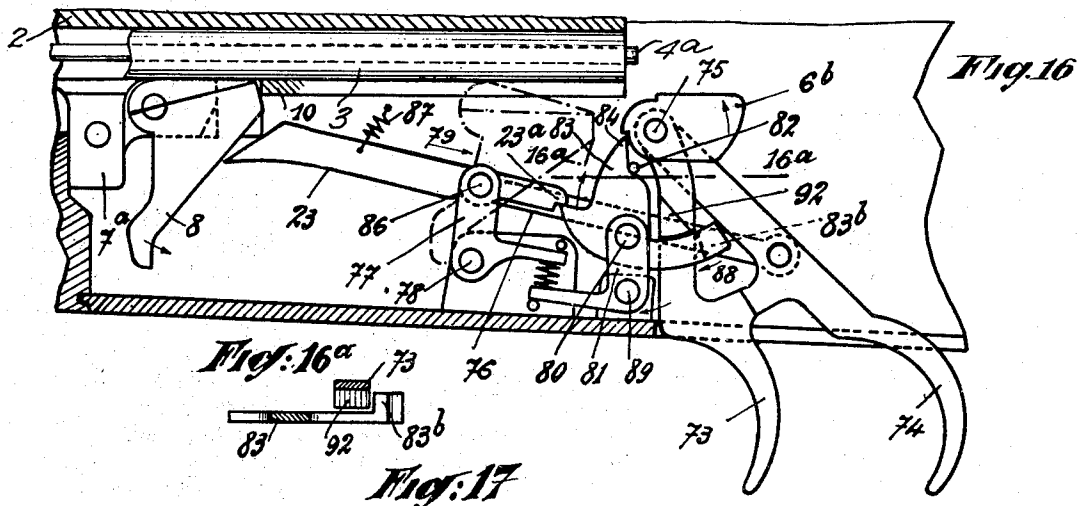


Fig. 16

Fig. 16a

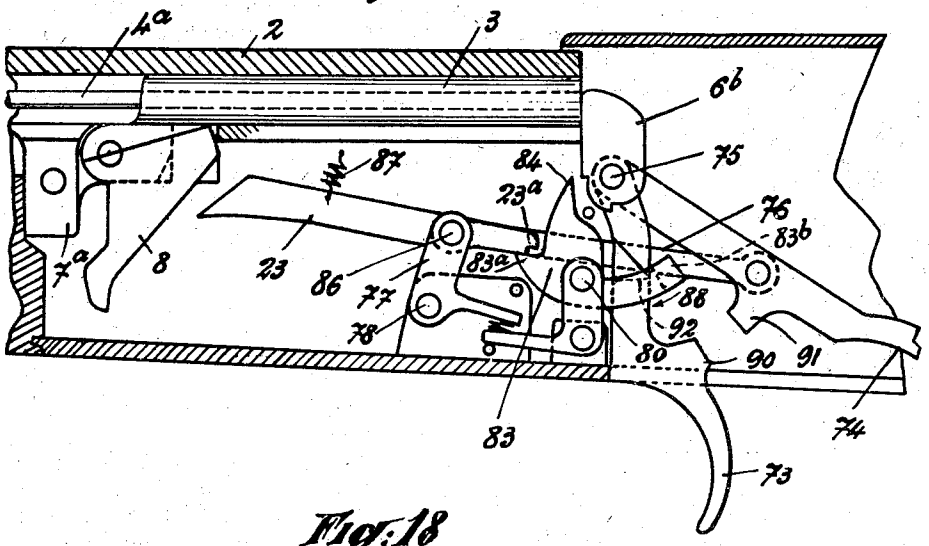


Fig. 17

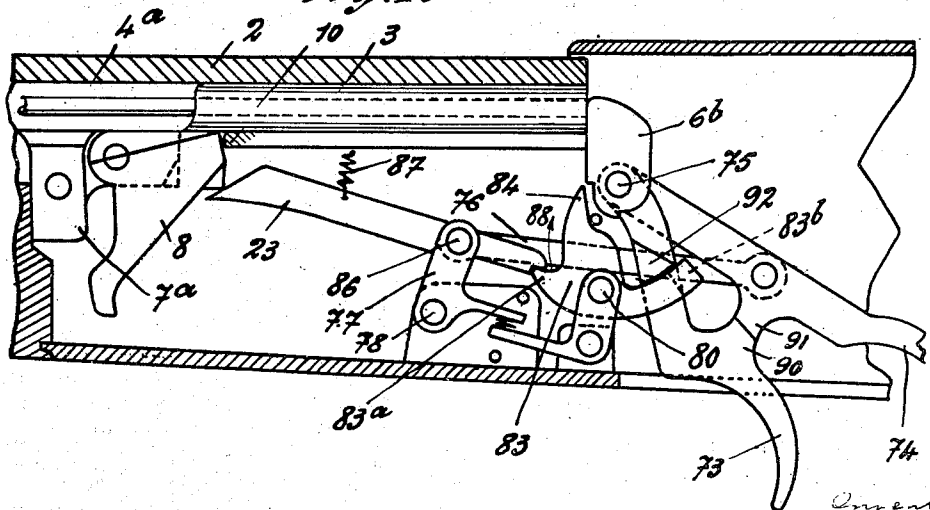


Fig. 18

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UNITED STATES PATENT OFFICE

2,035,303

AUTOMATIC QUICK FIRING ARM

Henri Delacre, Boulogne-sur-Seine, France

Application November 28, 1933, Serial No. 700,134
In France December 6, 1932

5 Claims. (Cl. 42—4)

In automatic repeating firearms, the force produced by the expansion of the gases of the cartridge that has just been fired are utilized for producing the recoil of the movable breech piece. In the course of its recoil, said movable breech piece ejects the empty shell and, when coming back to its initial position, inserts before it a new cartridge into the barrel.

This mode of working has the following drawback: when opening under the action of the gases under pressure, the movable breech piece permits said gases to escape through the chamber instead of being fully utilized for the propulsion of the bullet. A substantial portion of the gases is thus lost.

As a matter of fact, it is well known that the range, the penetration and the precision of these arms are far from being equal to the corresponding qualities of nonautomatic firearms in which the movable breech piece is locked.

The object of the present invention is to provide an automatic repeating firearm that obviates the drawback above mentioned.

To this effect, according to the present invention, the whole of the movable breech piece and of the barrel, suitably locked together, is mounted in a slideway, so as to permit the recoil when a shot is fired. At the end of the recoil, the breech piece is unlocked from the barrel and temporarily maintained in this position by a catch, so that the barrel comes back alone to its front position and ejects the empty shell. Furthermore a feeding organ containing a fresh cartridge is so arranged as to be released by the return movement of the barrel and to bring said cartridge opposite the chamber thereof, the cartridge being pushed into said chamber by the return movement of the movable breech piece, the release of which is produced by the upward movement of the feeding organ.

Another object of my invention is to provide a firearm of the type above explained with a trigger mechanism permitting to utilize the arm either with a separate trigger-pull for each shot, or like a machine-gun.

According to another embodiment of the present invention, the feeding organ above referred to may be done away with, the cartridge being then fed directly from the clip and introduced into the cartridge chamber by the action of the movable breech piece in the course of its return movement. In this case, the movable breech piece is released from its rear position by the return movement of the barrel, at the end of this movement.

Finally, it is advantageous to provide the firearm according to my invention with a device for slowing down the rate of fire, this device consisting of a cylinder in which moves a piston acting either by compression or by suction on a fluid, thus braking the return stroke either of the barrel or of the breech piece, either at the beginning or at the end of said stroke.

Preferred embodiments of the present invention will be hereinafter described, with reference to the accompanying drawings, given merely by way of example, and in which:

Figs. 1, 2, 3 and 4 are diagrammatic longitudinal sectional views of the rifle according to my invention showing the organs in their successive positions in the course of the working of the mechanism;

Figs. 5, 6, 7 and 8 are cross sectional views on the lines 5—5, 6—6, 7—7 and 8—8 of Figs. 1, 2, 3 and 4 respectively;

Figs. 9 and 10 are longitudinal sectional views relating to a modification of the trigger mechanism;

Figs. 11 and 12 are diagrammatic views of details of the mechanism;

Fig. 13 is a longitudinal sectional view of another embodiment of my invention, showing the mounting of the barrel in its bed and the various locking organs in the position for which a shot is ready to be fired;

Fig. 14 is a view similar to Fig. 13 showing these organs in their positions after a shot has been fired;

Fig. 15 is a similar view showing these organs in the position in which the breech mechanism is open;

Fig. 16 is a general view on an enlarged scale of the trigger mechanism in the position in which the first shot is ready to be fired;

Fig. 16ª is a sectional view on the line 16ª—16ª of Fig. 16;

Fig. 17 is a view similar to Fig. 16 showing the same organs after the second shot has been fired and before the beginning of the recoil, in the case of the arm firing like a machine-gun;

Fig. 18 is a similar view showing the same organs after the first shot has been fired and before the recoil in the case in which a separate trigger-pull is required for each shot.

As shown in the drawings and especially in Fig. 1, the barrel is prolonged by a breech 2 rigidly fixed to said barrel and in which is slidably fitted the movable breech piece 3 which contains, in the usual manner, the firing mechanism. This firing mechanism is diagrammatically illustrated

as including the firing pin 4 and a striker 5 integral with hammer 6. The whole of the barrel and of the movable breech is adapted to slide in a slideway not shown in the drawings.

The movable breech piece 3 is provided, at its lower part, with an extension 7 to which is pivoted a locking piece 8 the nose 9 of which is adapted to butt against an edge 10 of breech 2.

Extension 7 acts through its nose 11 on a pivoting lever 12 which is maintained in its lower position as shown in Fig. 1.

This pivoting lever 12 is completed by a small channel-shaped member 13 pivoted to said lever at 14 and subjected to the action of a spring 15.

The whole of lever 12 and of member 13 constitutes the feeding device serving to convey a cartridge from clip 29 to the cartridge chamber.

About the spindle 16 that carries pivoting lever 12 there is also pivoted a locking member 18 provided with a projection 19.

The trigger mechanism comprises the trigger 20 pivoted at 21 about the pivot of tumbler 22, which may be actuated by a rod 23 connected to the trigger by a small connecting rod 24 and supported by a second small connecting rod 25.

The operation of the mechanism above described takes place as follows:

When a cartridge is fired (Fig. 1) movable breech piece 3 is pushed in a rearward direction by the pressure of the gases and it comes into the position shown in Fig. 2.

In the course of this recoil movement, this breech piece has caused barrel 1 to move rearwards together with it, due to locking piece 8 acting on the stop 10 of breech 2.

During this rearward displacement of the barrel, the feeding device ceases to be subjected to the action of extension 7 on lever 12; however it remains in its lower position in which it is maintained by lug 26 integral with the barrel and moving along a prolonged part 27 of lever 12 (Fig. 5).

The barrel 1 is provided with a small projection 28 which, as shown in Fig. 2, catches a cartridge in clip 29 and drives it along to the feeding device, in which it is held by member 13 pivoted to lever 12.

The movable breech piece 3 is locked at the end of its rearward stroke, as shown in Fig. 2, by locking member 18 the nose 19 of which has been brought by spring 30 opposite the edge 11 of extension 7.

In the course of its rearward movement together with movable breech 3, the end 31 of locking piece 8 has come into contact with stationary stop 32, causing said locking piece to pivot. Consequently the nose 9 of this locking piece ceases to be located opposite stop 10 and the whole of barrel 1 and of breech 2 is released and comes back to its front position under the action of a spring 33 fitted in the gunstock. The organs are now in the position of Fig. 3.

In the course of this displacement, breech 2 performs the ejection of the empty shell, which had remained engaged with breech piece 2, by means of the ordinary extractor, not shown in the drawings, the shell being thus ejected through port 36 provided in breech 2. This ejection is facilitated by the action of lug 37 provided in the usual manner for causing the shell to pivot outwardly through said port. Several other known arrangements, such as the lengthening of the firing pin, can also be employed for the ejection of the empty shell.

During this return stroke of the barrel, movable breech 3 has remained in its rear position in which it is maintained by locking member 18.

When barrel 1 and breech 2 have come back to their front position, as shown in Fig. 3, lug 26 has ceased to act on portion 27 of lever 12 and the latter, urged by spring 15, which acts on member 13, pivots upwardly and brings a fresh cartridge into breech 2, as shown in Fig. 3.

In the course of its pivoting movement, lever 12 causes locking member 18 to pivot about spindle 16. This is due to the fact that the flat face 34 of said lever comes into contact with the flat face 34a of locking member 18, which is thus caused to pivot in a downward direction and releases breech piece 3.

The latter, under the action of a spring not shown in the drawings, but which is fitted in the gunstock and fixed to a rod 35 the head of which is engaged in a notch of extension 7, comes back to its front position as shown in Fig. 4 and pushes the fresh cartridge into barrel 1.

At the same time the extension 7 of breech piece 3 brings the feeding device in its lower position for which member 13 is ready to receive a fresh cartridge.

Locking piece 8, which is pivoted to extension 7 has come back to its front position. As its inclined surface 8a is no longer maintained by stop 10, this locking piece rotates upwardly under the action of spring 30, transmitted to it through locking member 18. The nose 9 of locking piece 8 therefore comes back opposite stop 10 and the movable breech piece 3 and the breech 2 are again locked together, as shown in Fig. 4, and also by Fig. 1.

In the course of its return movement, the movable breech piece 3 has caused striker 4 and hammer 6 to move forward a certain distance together with it, but the tumbler hook 22 has caught the lug 6a of the hammer, thus stopping its forward displacement and the arm is cocked.

The firing is controlled by trigger 20, which actuates tumbler 22 through rod 23, connected to the trigger by small rod 24.

This rod 23 is provided at its end with a tooth 38 adapted to engage with, and push, tumbler 22, as shown in Fig. 4. When trigger 20 is acted upon by the finger, tumbler 22 pivots about its spindle 21 and releases lug 6a. The striker, urged by spring 39, strikes the firing pin 4, so that the cartridge is fired.

The rod 23, which may be actuated by the trigger through any suitable means, is arranged in such manner that it can engage with the tumbler 22 only when movable breech piece 3 is locked with breech 2. This ensures that no shot will be fired as long as the movable breech piece is not rigidly connected to the barrel so as to be able to drive it along in its recoil movement.

This "safety" is obtained in the following manner:

At its end opposed to tooth 38, rod 23 is provided with an inclined surface 40 which is in contact with the end 41 of locking piece 8. In the course of its recoil movement, this piece, acting on surface 40, causes rod 23 to pivot about spindle 42 and its end 38 is moved upwardly and ceases to engage the tumbler 22. Rod 23 is maintained in this position as long as movable breech piece 3 is in its rear position, the rod 38 of rod 23 being brought into its lower position only when breech piece 3 has come back to its front position and is locked to breech 2.

According to a modification, the device for controling the firing is so arranged as to permit

the arm to fire as a machine gun, the firing of a cartridge being possible only when the movable breech piece 3 is locked to the breech 2 of barrel 1.

This modification is illustrated in Fig. 9, which shows the mechanism in its position of rest, and in Fig. 10, which shows another position of the mechanism for which the trigger is depressed by the finger; a first shot has been fired and the hammer is cocked.

Besides the organs above described, such as tumbler 22, trigger 20, rod 23, and small rods 24 and 25, and also locking piece 8 and its stop 32, this device further includes an oscillating piece 43 pivoted at 52 to a small connecting rod 54 by which it is carried and which is pivoted at 44, and a lever 45 permitting this oscillating piece 43 to be actuated by the end 31 of locking piece 8 only when the hammer is cocked.

The operation of this device takes place as follows:

When the movable breech piece 3 is driven backwards after the cartridge has been fired, hammer 6 is brought into contact with lever 45 and causes it to pivot about spindle 46. Nose 47 is caused to rotate in a downward direction and oscillating piece 43 pivots in the direction of arrow F^2. It has been above explained that, at the end of the recoil stroke, locking piece 8 was pivoted in a downward direction due to its coming into contact with stop 32. In its frontward return movement, this locking piece is still in this position, until, at the end of this movement, it is caused to turn upwardly so as to again lock movable breech piece 3 with breech 2.

In the course of its upward movement in the direction of arrow F^3 (Fig. 10), the end 31 of locking piece 8 strikes oscillating piece 43 and the latter pushes, through shoulder 48, the tumbler lever, which releases hammer 6 and causes the next shot to be fired.

The hammer being released, lever 45 comes back to its position shown in Fig. 9. Its nose 47 causes oscillating piece 43 to pivot so that its end 53 escapes to locking piece 8 so as not to interfere with the recoil movement, which is going to start.

The projection 49 of trigger 20 is intended to lift and to immobilize piece 43 and thus to stop firing as soon as the trigger is no longer depressed by the finger.

This device, besides the mode of firing above described, which is obtained through the action of locking piece 8, also permits of firing only one shot for each trigger-pull.

To this effect, a cam 50, the boss 51 of which can occupy three determined distinct positions under the action of a milled button projecting on the outside, destroys the action of oscillating piece 43.

As shown in Fig. 11, if cam 50 is so turned as to bring boss 51 in the position illustrated by this figure, piece 43 is lifted and it can no longer be controlled by locking piece 8 since its end 53 no longer comes into contact with the end 31 of said locking piece (as shown in Fig. 9). In this case, each shot is fired by the action of rod 23 on the tumbler, in the manner above described.

Furthermore, cam 50 can act as a safety organ. When its boss 51 is brought into the position shown in Fig. 12, the tumbler lever can no longer be displaced toward the right hand side since it is blocked by said boss 51, and it therefore prevents hammer 6 from being released.

In the drawings, the various return springs have not been shown, for the sake of clarity; only their direction of action has been shown by small arrows.

It should be noted that in the clip that is utilized the cartridges are taken toward the rear, as if they were distributed by a magazine. This arrangement avoids the drawbacks of a magazine (slow charging of the magazine, center of gravity varying with the number of cartridges present in the magazine). This type of clip can be utilized with nonautomatic repeating firearms. This clip can be made of such a shape that it contains a great number of cartridges.

Of course the embodiment above described can be modified in its details without departing from the principle of the present invention.

According to another embodiment of my invention and as above stated, the barrel 1 is still prolonged by a breech 2 rigidly fixed to said barrel and in which the movable breech piece can slide. The firing system may be different from that above described and comprise a central firing pin 4^a acted upon by hammer 6^b. As shown in Figs. 16 to 18, this hammer is mounted on the outside of breech piece 3 and can be a part of the gun-lock, in the usual manner. This gun-lock, which may be of any known type is not shown in the drawings, for the sake of clarity.

The whole of the barrel and of movable breech piece 3 can slide in the gunstock, which is provided with guides 61 for this purpose. In order to open the breech mechanism, so as to permit of ejecting the empty shell and of introducing a fresh cartridge in the barrel, movable breech piece 3 is maintained in its rear position, during the frontward stroke of the barrel, after the recoil movement caused by the firing of a cartridge, by the following mechanism:

The movable breech piece 3 is completed by an extension or prolonged part 7^a on which is pivotally mounted the locking piece 8 cooperating with stop 10 in order to lock, during the recoil movement, movable breech piece 3 and breech 2 which is rigidly fixed to barrel 1.

To this extension 7^a are pivoted two connecting rods 62 connected, at their opposite ends, located inside the gunstock, with a sliding piece 63 which acts as a cross member for said rods and is capable of sliding along guide-rod 64 which bears against pawl 66.

About this guide rod there is mounted a spring 65 interposed between sliding piece 63 and the head 64^a of rod 64, so as to apply said head against pawl 66. In the course of the recoil stroke of the whole of the barrel and the breech piece, the nose 67 of said pawl engages in a notch 68 provided in each of the connecting rods 62 (Fig. 14). Consequently, the movable portion 3 of the breech is maintained in its rear position, as shown in Fig. 15, and only barrel 1 and breech 2 are allowed to return toward the front under the action of spring 69 fitted in the gunstock. This locking of the movable portion 3 of the breech permits the ejection of the empty shell.

When the barrel is nearing the end of its frontward stroke, it causes movable breech part 3 to be released. This release is obtained through the action of an inclined surface 70^a provided on a prolonged part of the barrel. As shown in Fig. 15, this inclined surface causes pawl 66 to pivot in a clockwise direction thus moving the nose 67 of this pawl from notch 68, which releases connecting rods 62. Under the action of return spring 65, these rods move toward the left hand side of the figure, thus bringing the movable portion 3 of

the breech back to its front position, in which it is locked to breech 2 by means of locking piece 8 and stop 10.

In the course of this return movement the movable portion 3 of the breech has extracted a cartridge from clip 71 and has pushed it into the cartridge chamber of the barrel.

As shown by the drawings, the feeding system may comprise merely a clip 71 in which the cartridges are piled in the usual manner, these cartridges being urged to move upwardly from said clip by a spring housed in the lower portion of said clip.

The cartridges are maintained in the clip, in the course of the recoil movement of the whole of the barrel and of the breech, by prolonged parts, such as 7^b, integral with the movable portion 3 of the breech, and 70 integral with the barrel.

These prolonged parts are made of such a cross section that they may slide between the side plates of the clip without catching the cartridges, which are therefore maintained in position in the clip during the whole of the recoil stroke of the whole of the barrel and of the breech.

In the course of the return movement of the barrel (the movable portion 3 of the breech being kept stationary), the prolonged part 70 of the barrel comes into the position shown in Fig. 15. The clip is therefore opened at the top, its spring pushing into the space directly behind the barrel a cartridge which will be pushed into the barrel by the prolonged part 7^b of breech part 3 at the end of the return stroke thereof.

In order to facilitate the introduction of the cartridge into the chamber, I provide behind said chamber an inclined surface 72, which guides the front end of the bullet and leads the cartridge into said chamber. This inclined surface is provided with a recess for the introduction thereinto of the prolonged part 7^b, as shown in Fig. 13.

According to a modification, the firearm according to my invention can be caused either to fire like a machine-gun or to fire in the ordinary manner, each shot then requiring a separate trigger-pull. The arm is provided with two triggers each corresponding to one of these modes of firing. These two triggers 73, 74 respectively are located one behind the other as shown in Figs. 16 to 18, in which I have shown the trigger mechanism on a larger scale. (The arrows show the directions in which the return springs act).

Fig. 16 corresponds to the position "ready to fire" common to both of these modes of firing.

Fig. 17 corresponds to the firing in the manner of a machine-gun, which is obtained in the following manner:

The barrel and the movable portion 3 of the breech are locked together, hammer 6^b being cocked (Fig. 16).

By acting on trigger 74, which is pivoted at 75, one pulls, through connecting rod 76, rod 23 carried by bent lever 77 adapted to pivot about fixed point 78.

This rod 23 is then displaced in the direction of arrow 79 and its end 23^a is caused to push swinging piece 83, pivoted at 80 to a support 81 itself pivoted about stationary spindle 89. Swinging piece 83, which bears against stationary stop 82, pivots about spindle 80, which is urged in a backward direction. The nose 84 of said piece 83 is therefore disengaged from with hammer 6^b which, under the action of its return spring, not shown in the drawings, strikes the head of the firing pin, thus firing the shot.

The whole of the barrel and of the breech moves backward and, in the course of this movement, rod 23 is caused to rotate in an anti-clockwise direction, as shown in Fig. 14, while the whole of support 81 and piece 83 comes back to its original position.

At the end of the return movement of the movable part 3 of the breech, connecting rod 23 is released and pivots about spindle 86 in the clockwise direction, under the action of spring 87 (Fig. 17). But this rod 23 cannot come back into the position shown in Fig. 16 because trigger 74 is still depressed and its end 23^a has been displaced toward the rear. Consequently, this end 23^a bears upon the end 83^a of swinging piece 83 (Fig. 17) which is pivoted in an anti-clockwise direction, thus releasing hammer 6^b, which fires the second shot, and so on.

The hammer has been cocked by the recoil of part 3 of the breech, which recoil has caused said hammer to pivot about 75 and to engage the nose 84 of swinging piece 83, which is urged by a spring (not shown but the direction of action of which is indicated by arrow 88) to pivot about spindle 80. It is quite clear that the action of spring 87 must be stronger than that of spring 88 and that, as soon as the barrel and the movable part 3 of the lock are locked together, rod 23 bears upon the nose 83^a of the swinging piece 83 and causes the latter to pivot about spindle 80 and to release hammer 6^b.

The fire thus obtained is continuous like that of a machine-gun as long as trigger 74 is depressed.

Trigger 73 serves to obtain a separate shot for each trigger-pull.

Adverting to Fig. 18, it will be seen that the depressing of trigger 73 produces a displacement of trigger 74. This is due to the fact that a projection 90 of trigger 73 comes into contact with a projection 91 of trigger 74, depressing it as in the preceding case and therefore causing a shot to be fire.

The pivoting of trigger 73 about its spindle 75 also brings stop 92 opposite portion 83^b of the swinging piece 83, thus preventing said swinging piece from rotating about its spindle 80. It follows that when the movable part 3 of the breech is brought back to its front position, rod 23, although it is released by said movable part of the breech, cannot move (through the action of spring 87) the nose 83^a of swinging piece 83 so that the hammer remains engaged with the nose 84 of this piece.

In order to fire the next shot, it is therefore necessary to release trigger 73 and again to depress it.

In order to save ammunition in the case of the arm firing as a machine-gun and also to ensure a rate of fire such that a shot is not fired until the arm has been brought back into firing position, all the reflex movements of the marksman being corrected, it is advantageous to provide a device for slowing down the rate of fire. On the other hand, this will prevent any exaggerated heating of the arm and will permit a greater precision and efficiency of the fire.

This device can be made as follows:

An air cylinder 94 (Fig. 13) is fitted with a piston 95 (of stamped leather for instance) the rod 96 of which is rigidly connected to barrel 1.

In the course of the recoil stroke, air is allowed to penetrate into the chamber 97 of this cylinder by flowing past the turned edge of the leather. During the return stroke, the air thus admitted is compressed and can escape only through a

port 98. The rate of flow through said port can be adjusted by means of a screw 99.

Of course, this slowing device, instead of working with air could utilize, oil, alcohol, glycerin or any other nonfreezing liquid. Its piston might be metallic, being then provided with a check valve.

Also, instead of working by compression, the device could work by suction.

In the embodiment above described the fresh cartridges are admitted from the lower part of the breech mechanism. This arrangement is not the only possible one, since the cartridges might be admitted from the upper part of the breech mechanism, through the action of gravity. It should also be well understood that, in order to slow down the rate of fire, the essential thing is to brake the return movement of the barrel, or of the movable part of the breech, either at the beginning or at the end of the return stroke. Finally, the means for locking said movable portion of the breech may be of any suitable type.

While I have described what I deem to be a practical and efficient embodiment of my invention, it should be well understood that I do not wish to be limited thereto as there might be changes made in the arrangement, disposition and form of the parts without departing from the principle of my invention as comprehended within the scope of the appended claims.

What I claim is:

1. An automatic repeating firearm which comprises in combination, a gunstock, a barrel slidable in said gunstock, a breech rigidly fixed to said barrel, a breech piece movable in said breech, separate elastic means for urging said barrel and said breech piece respectively toward the front of the gunstock, a locking piece pivoted to said breech piece for locking said barrel and said breech piece together when both are in their front positions, means for bringing said locking piece into inoperative position after a given displacement of the whole toward the rear with respect to said gunstock whereby said barrel is unlocked from said breech piece and is allowed to return to its front position, at least one rod fixed to said breech piece and housed in said gunstock, said rod being provided with a notch, a pawl pivoted in said gunstock, elastic means for pushing said pawl into said notch, whereby said breech piece is locked in its rear position at the end of its backward stroke, and an inclined surface carried by said barrel adapted to disengage said pawl from said notch when the barrel has come back into its front position, whereby said breech piece is unlocked from its rear position and allowed to return to its front position.

2. An automatic firearm according to claim 1 further including a clip housed backward and just upon the barrel and including two parallel side plates for guiding the cartridges therein, a spring for urging the cartridges in said clip upwardly toward said barrel, and a part integral with said breech piece slidable between said side plates in such manner as to maintain the cartridges in position in said clip and to prevent them from being caught or displaced in the course of the backward movement of both of the breech piece and the barrel.

3. An automatic firearm according to claim 1, further including a clip housed backward and upon the barrel and including two parallel side plates for guiding the cartridges between them, a spring for urging the cartridges in said clip upwardly toward said barrel, and means for guiding the cartridges in position, including a part rigid with said barrel slidable between said side plates, said part having an inclined surface adapted to guide the head of the top cartridge into firing position into the barrel, a part integral with said breech piece having a vertical front end, said last mentioned part being adapted to slide between said side plates and being operative to push forward the top cartridge in the clip into firing position through said vertical front end upon release of the breech piece, said part rigid with the barrel being provided with a recess in its inclined surface adapted to receive said front end of the part integral with said breech piece when said breech piece is in locked position.

4. An automatic firearm according to claim 1 in which the rod rigid with said breech piece is provided with two parallel elements, a cross member carried by said elements, another rod, parallel with the first mentioned one and along which the said cross member is slidable and a head carried by said last mentioned rod and adapted to cooperate with said pawl.

5. An automatic firearm according to claim 1 in which the rod rigid with said breech piece is provided with two parallel elements, a cross member carried by said elements, another rod, parallel with the first mentioned one and along which the said cross member is slidable, a head carried by said last mentioned rod and adapted to cooperate with said pawl, and a spiral spring interposed between said cross member and said head, the whole forming both the elastic means for urging said breech piece toward the front of the gunstock and the elastic means pushing said pawl into said notch.

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