Dec. 3, 1929. C. LEVÉ 1,738,439

AUTOMATIC GUN

Filed April 25, 1927

Fig. 1.

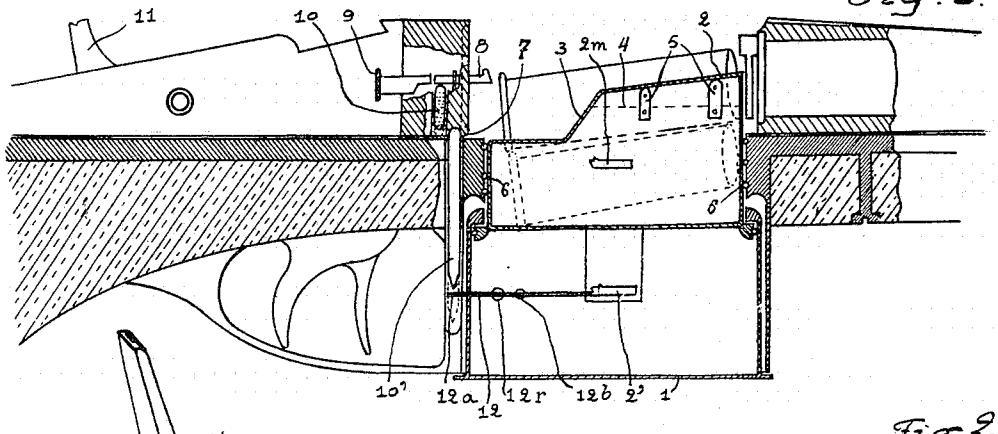
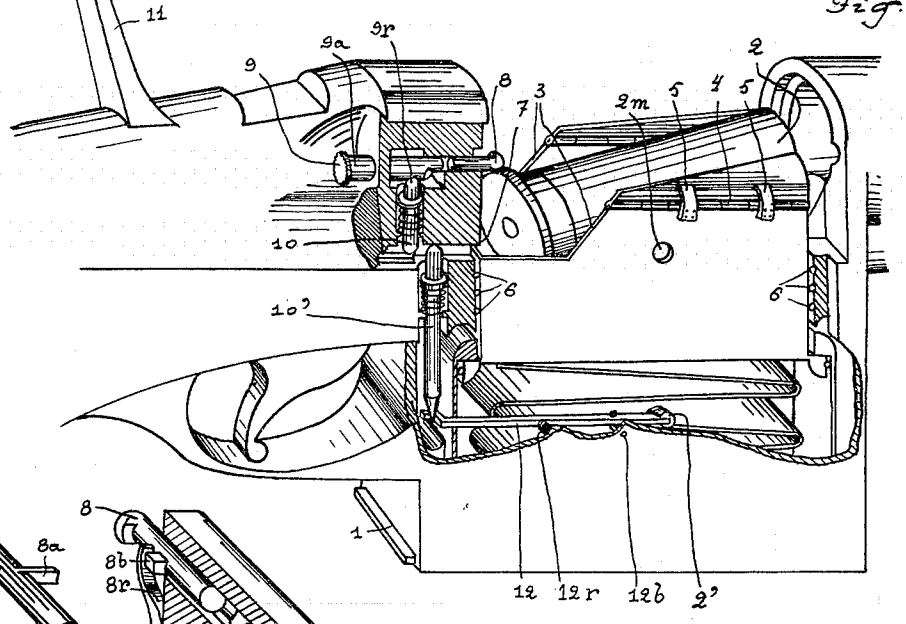


Fig. 2



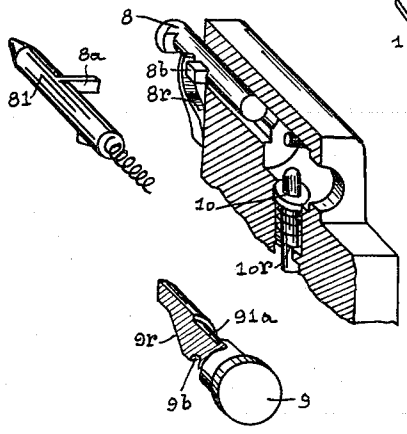


Fig. 3

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AUTOMATIC GUN

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The invention relates to an optionally repeating gun having fixed barrels, the object thereof being to control the mechanism for advancing the cartridges in the magazine, through an action exerted manually by the sportsman on a mechanism which, when brought into suitable position, assures complete extraction of the cartridge in the barrel, fired or not fired, according to the desire of the sportsman, and this being replaced by a cartridge from the magazine.

This latter may be of different type from that which the sportsman had previously introduced into the barrel, a type which the sportsman considers suitable for shooting a kind of game which may appear unexpectedly.

In this weapon, according to the invention, the controlling element upon which the user operates to cause the weapon to operate as a repeating weapon, or to replace a cartridge which is in one barrel by another coming from the magazine, a part acts upon an ejector which is held in an operative position, such that it entirely removes the cartridge from the chamber of the barrel when the weapon is opened and, on the other hand, by a movable element formed, for example, by a cartridge carrier which presents at the face of the barrel a cartridge designed to replace that which is to be extracted.

The invention provides particularly that this action of the cartridge carrier may be realized by means of a bolt holding this carrier spaced from the barrel, in spite of the opposing action of a spring, when the weapon is not acting as a repeating weapon.

The accompanying drawings show an exemplary form of the invention.

Fig. 1 shows an improved gun according to the invention.

Fig. 2 is a perspective view with broken-away parts showing an improved gun barrel of the present invention applied to a single barrel gun.

Fig. 3 shows diagrammatically the cooperation of certain elements which for clearness of the figure have been removed from their normal position.

The figures show the weapon in its open position and the cartridge carrier 2 in its most elevated position designed to permit the introduction of a new cartridge into the barrel.

This carrier assumes this position upon opening the weapon, when this acts as a repeating arm or when the cartridge of the barrel is to be replaced by another coming from the magazine. For this purpose this carrier is urged upwardly by a spring shown in Fig. 2, but not shown in Fig. 1.

This spring is interposed between the bottom of the carrier 2 and the box 1 forming the cartridge magazine.

It is to be noted that the carrier 2 is itself shaped in the form of a box in the interior of which is arranged a spring designed to assure the elevation of the cartridges in the customary manner.

The movements of the carrier 2 relative to the box or magazine 1, are guided as shown in the drawings by means of balls 6 interposed between side walls of the magazine and those of the carrier.

The carrier 2 is returned to its lower position upon closing the weapon, due to the provision of an incline 3, upon which acts the portion 7 of the shutter forming the movable breech; at the same time this shutter pushes the cartridge to the interior of the barrel.

When the carrier 2 reaches its lower position in the box 1 it is located therein by means of a bolt 2′ cooperating with a notch 2^m provided in one of the faces of the box which constitutes the carrier 2.

The bolt 2′ is formed by a projection located on the end of a lever 12 pivoted at 12^b about a vertical axis provided upon the body of the weapon. This projection toward its top carries a cut surface, cut bevelled, in such way that during the descent of the box 2, it will be laterally displaced against the efforts of the return spring 12^r of the lever 12. The form of the projection constituting the above named bolt may be anything desired, and two different forms are shown respectively in Figs. 1 and 2.

The projection or bolt 2′, under the action of the spring 12^r, traverses a channel provided in the box 1, in such manner as to engage in the notch 2^m provided upon the face of

a movable portion 2. When this engagement is produced the movable part 2 is latched in its upper position.

As has been said above, the weapon according to my invention can be used in various ways:

(1) When the weapon does not act as a repeating weapon the cartridge carrier 2 remains locked in its lower position, even when the weapon is opened.

It is self-evident that in order to allow the complete removal of the shells of fired cartridges from the barrel by the simple act of opening the weapon, the above named ejector 8 may be put in operative position in known fashion by reason of movement of the hammer. It suffices, for instance, that this ejector be engaged in its motion somewhat before these elements are fired.

An element 8^a (see Fig. 3) shown near the ejector 8 of Fig. 1 shows this cooperation between the ejector and the hammer mechanism shown as a hammer 81.

The element 8^a which moves forward at the same time as the hammer, engages the ejector 8 by means of a pin 8^b rigid with this ejector.

The ejector which is thus brought into its operative position, holds by means of its catch the base flange of the cartridge which is located in the barrel. Upon opening the weapon this cartridge is ejected, and under the action of the return spring 8^r, the end of which is in contact with the pin 8^b, the ejector 8 resumes its non-operative position.

It should be noted that in this case, only the ejector 8 is moved forward because the part 9 forming the control element, which has been mentioned above, and which will be described in detail below, is not engaged in this movement.

As a result, when the ejector 8 is put in operative position by the hammer mechanism, the cartridge carrier is not freed from its system of bolts, so that upon opening the weapon this carrier remains held in its lower position, which corresponds to the action of the weapon as an ordinary one and not as a repeating weapon.

When the cartridge thus ejected is removed from the barrel, the firer may replace it manually by another cartridge and then close the weapon.

(2) When the firer desires to make the weapon act as a repeating weapon, that is to say, when it is desired to replace the cartridge which is in the barrel, whether this has been fired or not, by a cartridge coming from the cartridge magazine, without performing other operations than to open and then close the weapon, he first actuates the push button 9 by placing it forwardly. This action upon the push button produces two results: first, it places the ejector 8 in the holding position. Consequently upon the opening of the weapon, this ejector causes the complete ejection of the cartridge which is located in the barrel. The second result produced by the button 6 consists in that it displaces due to a cut face 9^r and pushing member 10 in such fashion that this pusher is made to project at the lower part of the breech block.

The button 9 is held in its forward position against the opposing action of the return spring 8^r of the ejector 8 due to the fact that its lower face is provided with a hollow 9^b, in which engages the pusher 10 tensioned by a return spring 10^r, the tension of which is sufficient to counterbalance the action of a spring 8^r.

When the button 9 is put in place, it is held in its position. While being capable of displacement to control the ejector 8 and the pusher 10, by means of a pin 91, engaging in a groove 91^a of the said button 9.

Due to the projection of the pusher 10 at the lower portion of the breech block, upon opening of the weapon and toward the end of the opening movement, the end of this pusher 10 acts upon a slide 10′, so as to displace it downwardly in such manner that the conical end with which it is provided in acting upon the arm 12^a of the lever 12 which carries the bolt 2′ produces the leaving of this bolt 2′ away from the seat 2^m of the cartridge carrier 2. This latter is consequently urged to move upwardly. By this movement it removes the cartridge which is about to be ejected by the ejector 8, if at this moment this cartridge has not yet fallen, and in all cases it brings before the barrel the upper cartridge of the series of cartridges carried by the carrier. In the case illustrated this series is limited to two elements.

Upon closing the weapon, this cartridge is introduced into the barrel in place of the cartridge which has been ejected. It will thus be seen that, if in the cartridge magazine there be placed cartridges of a sort different from those or that of the barrels or barrel, it is possible, if unexpectedly there appears a game for shooting for which the cartridges contained in the magaizne are better suitable than those contained in the barrel or barrels, to very rapidly replace the latter by one or more cartridges coming from the magazine.

For this purpose it is sufficient, after having exerted a pressure upon the push button 9, pushing it forward, to open and reclose the weapon.

As will also be seen from the case in Fig. 1, the push button occupies the position corresponding to the use of the weapon as a weapon not operating in a repeating style.

In the embodiment shown, the cartridges are kept in the box 2 of the cartridge carrier against the effort of a spring contained in this box, and not visible in the drawings, due to the fact that the upper levers of the said box are formed by the movable parts about the hinges 4 and urged to overhang the interior

of the box 2, above named, by reason of the elastic plates such as 5. These plates have a tension such that they do not yield under the action of the pusher which tend to raise the cartridges of the carrier, but which yield on the contrary when these cartridges are positively pushed to the interior of the barrel by the breech block of the weapon when the firer closes the latter. At this moment, further, the rising of the succeeding cartridge of the carrier is limited by the presence of the lower face of the shutter.

From all the preceding it follows that a weapon with two barrels, in accordance with my invention, may give the following combinations:

(*a*) Acting as an ordinary weapon of two barrels, that is to say, after the firing, cartridges are ejected automatically by the action of the hammer upon the ejector 8.

(*b*) The weapon having been loaded, for example, with small shot in the barrel and with bullets in the loaders, it is easy to substitute the cartridges with bullets for those with shot in the barrels, by pushing the buttons 9 forward and opening and closing the weapon.

(*c*) The action of a repeating weapon by placing the buttons 9 forward either before firing or after firing the cartridges which are already in the barrels.

What I claim is:

1. Optionally repeating fixed barrel sporting gun comprising a spring elevated magazine, a latch normally holding said magazine in non-loading position with respect to the gun barrel, against the tension of said elevating spring, tripping means for said latch, a movable breech block, said magazine and breech block being so cooperably constructed that the magazine is depressed to latched position by the passage of said breech block over the same in the act of closing the breech, an extractor carried by said breech block, selectively movable means carried by said breech block for optionally actuating the above said tripping means, a manually positionable knob carried by said breech block adapted when suitably positioned to simultaneously maintain the extractor into extracting relation to a cartridge in the gun barrel and maintain the selectively movable means in active position with respect to the said tripping means to release said latch when the breech block is brought in its opening position.

2. Optionally repeating fixed barrel sporting gun comprising a magazine for holding the cartridge, a movable knob controlling the position of an extractor and the operation of said magazine, said knob acting upon said magazine through a transmission system actuated by the opening of said gun including a member having its position varied by selective manipulation of the knob, said knob being provided with a cam adapted to act upon said member upon selective manipulative movement of said knob, said transmission means including a bolt actuated by said member and releasing said magazine.

In testimony whereof I have affixed my signature.

CHARLES LEVÉ.