

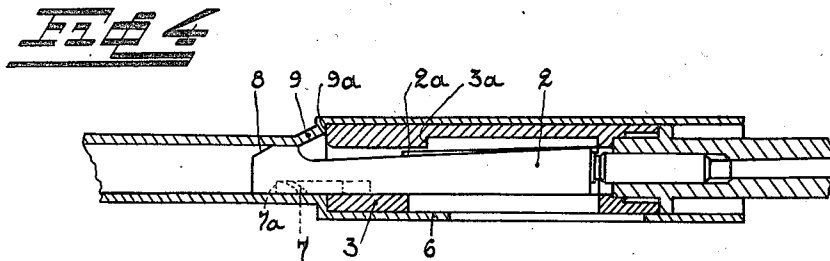
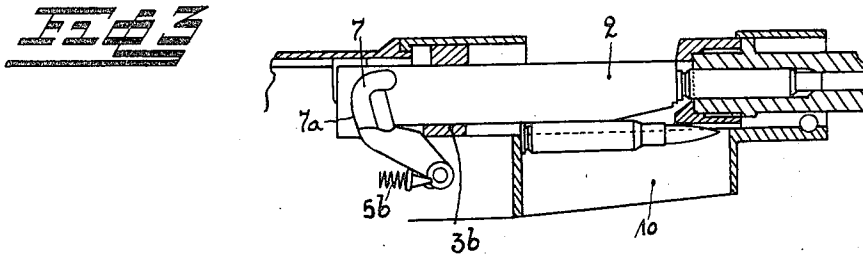
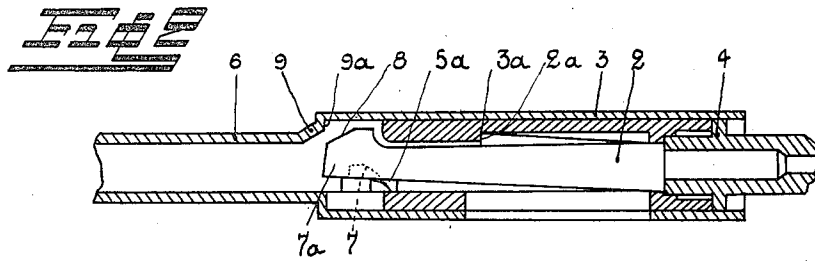
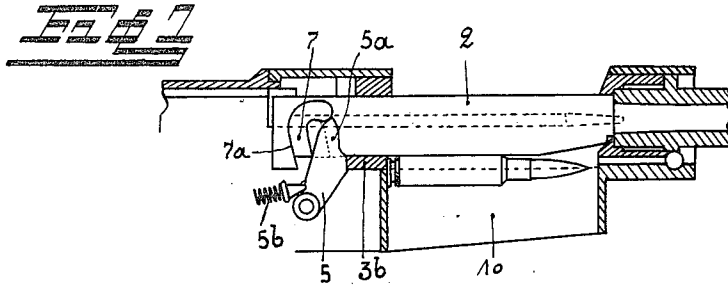
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AUTOMATIC REPEATING GUN

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AUTOMATIC REPEATING GUN

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4 Claims. (Cl. 42—3)

The invention relates to automatic repeating guns by means of which a plurality of cartridges may be shot without removing the gun from the shoulder; the different motions being automatically obtained by means of the recoil of the gun.

In order to decrease the length and the weight of the gun, it is designed so that the recoil of the barrel takes place, according to the invention, above the magazine. Although the gun is provided with a sliding barrel, the magazine is disposed in the same position as is the case in a fixed barrel gun, that is to say the forward part of the magazine is almost in the same plane as the edge of the barrel when the gun is in a position of rest.

With this construction, the extreme recoil travel of the bolt, the forward part of which must entirely free the magazine, is minimum; besides the length of the bolt which is necessary to cover the magazine in the position of rest is equally minimum. Accordingly, it is possible to make the breech-chamber for recoil-barrel guns of a length as short as permissible.

In order to allow the introduction of the cartridges into the barrel, the invention provides that return of the bolt, displaced when the gun is fired, by the recoil of the barrel above the magazine, takes place only when the barrel is returned to its initial position.

According to the invention the bolting is effected by means of a lever which serves in addition to separate the bolt from the sliding breech, when the gun is fired.

The annexed drawing illustrates by way of non-limiting example, one embodiment of the invention.

Figures 1 and 2 are respectively vertical, and horizontal fragmentary sections of a gun showing the position of the parts, when the gun is firing.

Figures 3 and 4 are respectively vertical and horizontal fragmentary sections of a gun showing the position of the parts, when the recoil of the barrel is almost terminated.

According to Figs. 1 and 2 the bolting is obtained by means of a projection or nose 2a of the bolt 2 being introduced into a notch 3a of the sliding breech at the extremity of which the barrel 4 is affixed. The bolting is completed by a lever 5 the extremity 5a of which is wedged between the bolt and the sliding breech 3.

As soon as a cartridge has been fired, the barrel 4 and the sliding breech move simultaneously back, without unbolting. At the same time, the lever 5 which is pivoted on a fixed point of the

arm is pushed by the rear part 3b of the sliding breech and pivots in the direction of the arrow. When the barrel has moved back through a length appropriate to the duration of passage of the bullet through the barrel, the lever 5 is disposed in front of a lateral groove 7 of the bolt (see Figs. 3 and 4). At the same time the shoulder 8 mounted on the rear part of the bolt slides on the shoulder 9 disposed on the breech-chamber 6. On account of the said sliding, the bolt is shifted into the axis of the barrel and is unbolted. At this moment the lever 5 continues to turn under the action of the part 3b of the sliding breech, and acts against the rear edge 1a of the groove 7 and produces a relative motion between the bolt and the sliding breech in order to facilitate the extraction of the fired cartridge. The sliding breech abuts against the edge 9a of the breech-chamber while the bolt continues to be rapidly displaced backwards to effect the extraction of the fired cartridge. As shown in Figs. 3 and 4, the recoil of the barrel takes place above the magazine.

At the end of the recoil travel of the bolt, the barrel and the sliding breech are returned to their initial position under the action of a spring (not shown). By means of a very simple device, (not shown), the bolt may be stopped in its extreme rear position, as long as the barrel is not returned to its initial position. This device may be constituted by means of a rod displaced by the barrel and which acts, for example, on a spring-pawl mounted in the path of the bolt.

As soon as the barrel is returned to its initial position, the bolt comes forward under the action of its spring, (not shown). When it is above the magazine 10, it effects the advance of a cartridge from the magazine and introduces it into the barrel. Likewise, it engages the lever 5 by means of the rear edge 1a of the groove 7.

As soon as the bolt has come back against the barrel, the lever 5 continues to turn under the action of its spring 5b and is wedged between the bolt and the sliding breech 3 in order to cause the transverse motion of the rear part of the bolt and consequently the bolting of the gun, which is then ready to fire again.

What I claim is:

1. An automatic repeating gun having a barrel adapted to recoil through a short distance, a breech movable with said barrel, a laterally shiftable bolt slidably mounted in said breech, a lever pivoted on a fixed part of said gun and wedged in position between one side of the bolt and breech when the breech is locked, means on the

breech for shifting said lever, one side of said bolt having a lateral notch provided therein near the rear and in front of which said lever is placed by the breech after a short recoil of the barrel, and
5 a longitudinally inclined projection provided on the face of the bolt opposite said lateral notch adapted near the end of the recoil of the barrel to cooperate with a fixed cam surface provided on the casing of the breech to unbolt the bolt and
10 breech.

2. An automatic repeating gun comprising a breech casing, a breech slidably mounted therein, a barrel affixed to said breech adapted to recoil through a short distance upon discharge, a maga-
15 zine positioned under said breech casing and communicating therewith, a bolt slidably mounted in said breech against vertical movement, the rear portion of said bolt being formed to provide for lateral movement in said breech, one side of the interior of said breech having a recess formed therein, a lateral projection formed on one side of the bolt adapted to enter the recess in the breech to lock the bolt to the breech, a cam formed
20 on the side of the bolt carrying the projection, cam means provided on the breech casing adapted to cooperate with the bolt cam to laterally shift the bolt near the end of the recoil to remove the projection from the recess in the breech, and wedging means adapted to enter between rear-
25 ward portions of the breech and bolt when the breech is in its forward position to retain the bolt projection in the recess of the breech.

3. An automatic repeating gun comprising a breech casing, a breech slidably mounted therein, a barrel affixed to said breech adapted to recoil through a short distance upon discharge, a maga-
35 zine positioned under said breech casing and communicating therewith, a bolt slidably mounted in said breech against vertical movement, the rear portion of said bolt being formed to provide for lateral movement in said breech, one side of the interior of said breech having a recess formed

therein, a lateral projection formed on one side of the bolt adapted to enter the recess in the breech to lock the bolt to the breech, a cam formed on the side of the bolt carrying the projection, cam means provided on the breech casing adapt-
5 ed to cooperate with the bolt cam to laterally shift the bolt near the end of the recoil to remove the projection from the recess in the breech, a lever pivoted on the breech casing, means on the rear of the breech for shifting said lever rearward-
10 ly upon recoil, means on said lever adapted to engage a groove in the side of the bolt when near its rear position for effecting a relative movement between the bolt and breech, and means on said lever adapted to wedge between the rearward por-
15 tions of the bolt and breech when in their forward position to retain the bolt projection in the recess of said breech.

4. An automatic repeating gun comprising a breech casing, a breech slidably mounted there-
20 in, a barrel affixed to said breech adapted to recoil through a short distance upon discharge, a maga- zine positioned under said breech casing and communicating therewith, a bolt slidably mounted in said breech against vertical movement, the rear
25 portion of said bolt being formed to provide for lateral movement in said breech, one side of the interior of said breech having a recess formed therein, a lateral projection formed on one side of the bolt adapted to enter the recess in the
30 breech to lock the bolt to the breech, a cam formed on the side of the bolt carrying the projec- tion, cam means provided on the breech casing adapted to cooperate with the bolt cam to lat-
35 erally shift the bolt near the end of the recoil to remove the projection from the recess in the breech, and a lever pivoted for movement longi- tudinally of the gun for wedging between rear-
ward portions of the bolt and breech when in their forward position to retain the bolt projection in
40 the recess of the breech.

RENÉ LALOUX.