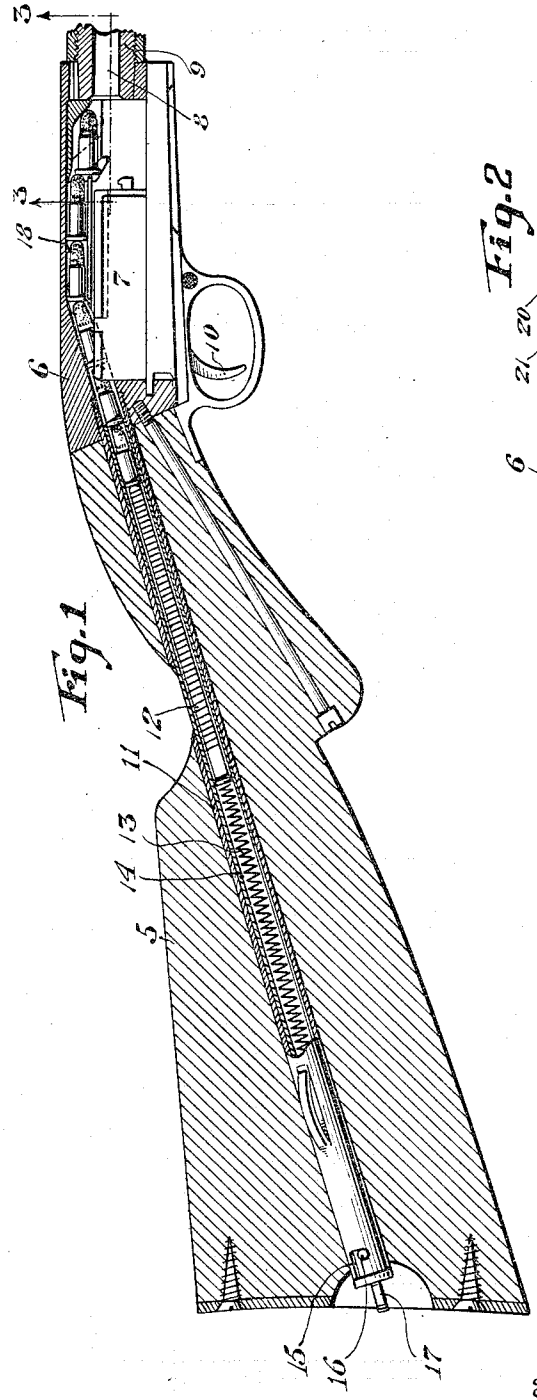
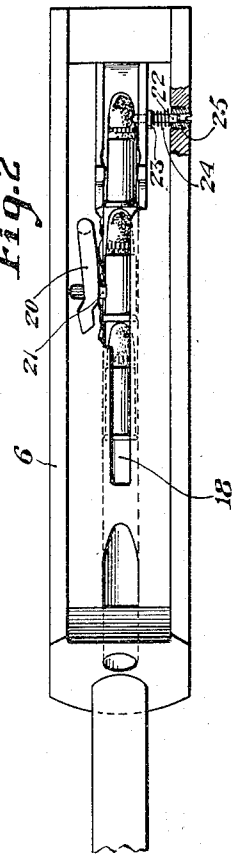
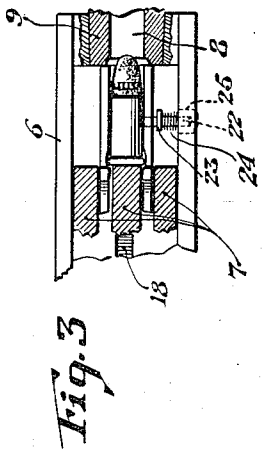
Dec. 17, 1929. C. C. LOOMIS 1,740,187

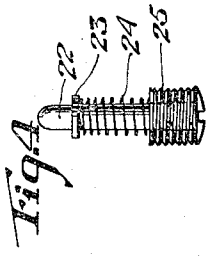
FIREARM

Filed Dec. 14, 1926









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UNITED STATES PATENT OFFICE

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FIREARM

Application filed December 14, 1926. Serial No. 154,672.

This invention relates particularly to firearms of the type comprising a magazine adapted to contain a number of cartridges which are transferred one at a time to the firing chamber to be fired. In guns of this type the opening through which cartridges are transferred from the magazine to the chamber must be provided with "cartridge stop" devices which will retain the cartridges in the magazine when the chamber closing breech mechanism is retracted to open the chamber, thus permitting the shell case of the fired cartridge to be ejected without interference from the next cartridge to be transferred to the chamber. The means for transferring the cartridge from the magazine to the chamber is ordinarily associated with the breech block in such a way that the transfer of the cartridge takes place on the forward or breech closing movement of the breech block. The arrangement must be such that the cartridge stop is displaced at the proper time to permit such transfer of the cartridge.

The present invention contemplates an improved cartridge stop. For the purpose of illustration the invention has been shown as applied to a firearm of the type disclosed in the patent to Browning, #1,083,384, although it is to be understood that this application of the device is merely illustrative and not restrictive, the invention being applicable to other types of firearms as well.

In the drawings:

Fig. 1 is a fragmentary sectional elevation of a firearm embodying the invention.

Fig. 2 is an enlarged inverted plant of the receiver with the breech mechanism removed.

Fig. 3 is a fragmentary transverse section, substantially on the line 3—3 of Fig. 1 illustrating the operation of transferring a cartridge to the chamber.

Fig. 4 is an assembly view of the improved cartridge stop.

The firearm comprises a stock 5, suitably secured to a receiver 6 containing a breech block 7 adapted to close the end of the chamber 8, formed in the adjacent end of the barrel 9. The breech block 7 contains the usual firing pin (not shown) controlled by the trigger 10. The cartridge containing magazine comprises a tube 11, extending into the receiver and containing the flexible magazine follower 12 and follower spring 13, which may be housed in the auxilliary tube 14. Tube 14 is held in the tube 11 by a bayonet joint connection comprising slot 15 and pin 16, and is released by manipulation of a finger piece 17 associated with the tube 14.

The end of the magazine tube 11 adjacent to the receiver is in alignment with a channel 18 extending longitudinally through the receiver.

The upper wall of the channel 18 curves downwardly at its forward end for the purpose of guiding the nose of the cartridge into the chamber. When the breech block is closed, the foremost cartridge in the magazine is supported in part by the top of the breech block. When the breech block is retracted the foremost cartridge is pressed forwardly by the force of the magazine spring communicated through the column of cartridges in the magazine and is depressed substantially to the position shown in Fig. 1, in which its head will be engaged by the breech block on its forward movement, and the cartridge moved into the magazine. Means are provided for temporarily restraining forward movement of the second cartridge in the magazine while the foremost cartridge is being transferred to the chamber, said means comprising the cartridge cut-off member 20 having a laterally extending nose 21. The cut-off member 20 is adapted to be moved on the rearward movement of the breech block to bring the nose 21 into the path of the cartridges in the channel 18 and to be restored to ineffective position as the breech block is closed. The mechanism for this purpose as well as other parts of the firearm which have

been hereinbefore mentioned are more fully illustrated and described in the patent to Browning #1,083,384 above mentioned.

It is necessary to provide means for restraining the forward and downward movement of the foremost cartridge in the magazine while the breech block is in retracted position. For this purpose, the present invention contemplates the provision of the cartridge stop device which will now be described.

A transverse cartridge stop pin 22 is placed in the side of the receiver near the forward end of the channel 18, and extends a short distance into the channel 18. Said pin comprises a shoulder 23 which both limits its movement into the channel and forms an abutment for one end of coiled spring 24 which surrounds the pin. An apertured screw 25 in the receiver wall receives the exterior end of the pin 22, the aperture serving as a guide for the pin and the screw also forming an abutment for the spring 24. The pin is thus pressed inwardly into the channel 18 by the spring 24, and, engaging the side of the foremost cartridge prevents its movement out of the channel 18 as long as the pin remains in effective position. As the breech block moves forward the head of the cartridge is engaged by the face of the breech block, and under the pressure thus exerted upon the cartridge pin 22 is depressed against the action of its spring, being cammed back by its contact with the cylindrical side of the cartridge which moves downwardly and forwardly past it. As soon as the cartridge has been sufficiently depressed to clear the pin 22 spring 24 again restores the pin to effective position.

A cartridge stop is thus provided which, while unusually effective, is capable of displacement merely by the pressure exerted upon the cartrtridge by the breech block and does not require special mechanism for effecting its displacement. The construction moreover is rugged and simple, the parts are easily and cheaply produced and are not readily susceptible to injury or breakage. It will also be noted that the cartridge stop device shown in the patent to Browning, above mentioned, can be replaced by the cartridge stop device of this invention without alteration in any other parts of the mechanism. The invention is not to be considered as limited to the precise construction shown and described since it is susceptible of many modifications all falling within the scope of the appended claim.

What is claimed is:

In a firearm comprising a chamber, a receiver and a magazine adapted to contain cartridges to be transferred one at a time through the receiver to the chamber, a reciprocating breech block in the receiver movable to engage and transfer a cartridge from the receiver into the chamber, a cartridge stop adapted to resiliently bear against the bullet and body of said cartridge to thereby support the same and to yield under pressure from said cartridge when moved by said breech block, said stop comprising a horizontally and transversely slidable pin having a cartridge engaging portion at its inner end, an abutment on said pin, a screw positioned in the side wall of said receiver and having an aperture receiving said pin, and a coil spring surrounding said pin and bearing against said abutment and said screw.

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