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C. C. LOOMIS

1,858,862

FIREARM

Filed Jan. 19, 1931

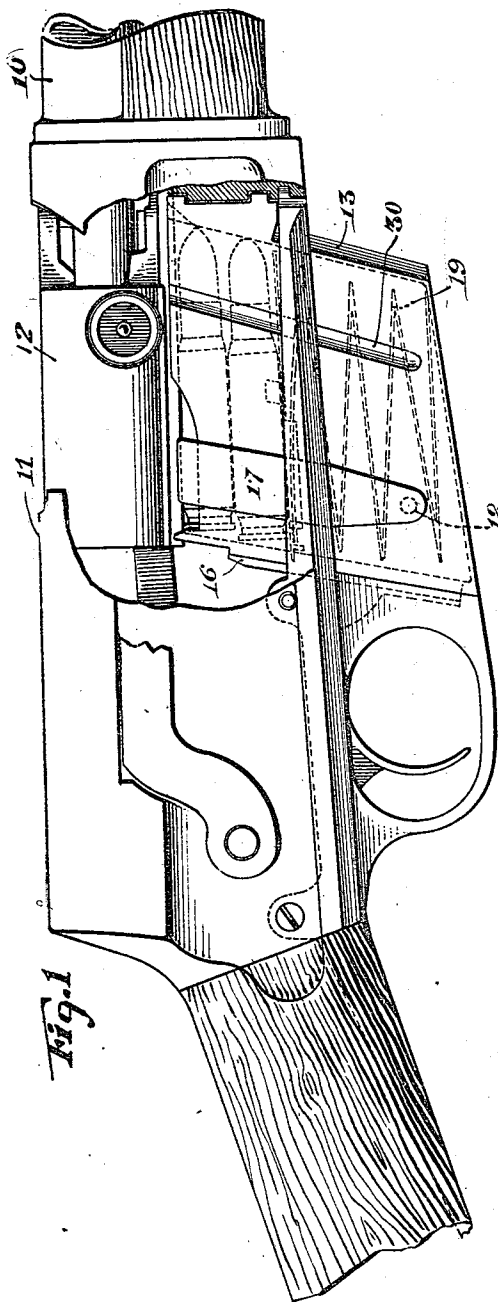


Fig. 1

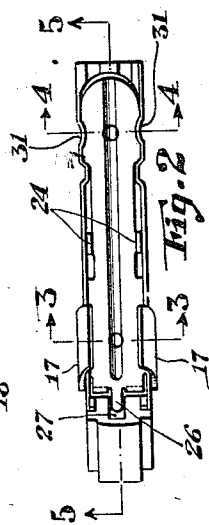


Fig. 2

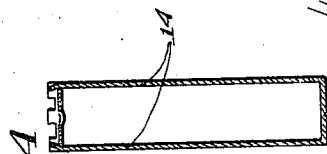


Fig. 3

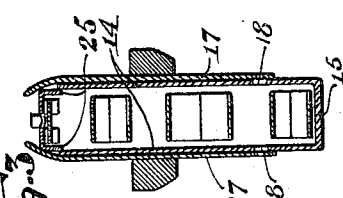


Fig. 4

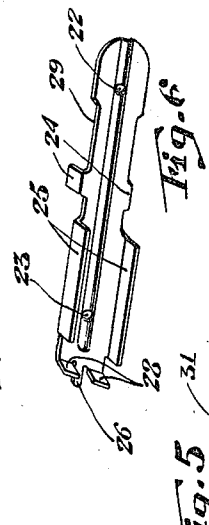


Fig. 5

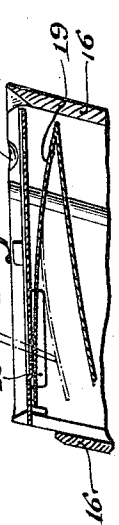


Fig. 6

INVENTOR.
Crawford C. Loomis
BY *A. A. Mische & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE

CRAWFORD C. LOOMIS, OF ILION, NEW YORK, ASSIGNOR TO REMINGTON ARMS COMPANY, INC., A CORPORATION OF DELAWARE

FIREARM

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This invention relates to firearms, particularly to firearms of the type including what is commonly known as a "box" magazine, in which cartridges are stored one above another in or adjacent to the receiver in such a position that the uppermost cartridge may be engaged by a device associated with the breech block and thereby moved into the chamber upon the chamber closing movement of the breech block.

The invention contemplates certain improvements in the construction of such box magazines with particular reference to the manner of retaining cartridges therein, and the construction of a follower device interposed between the cartridges and the spring by which the uppermost cartridge is moved into position for transfer to the chamber.

In the drawings:

Fig. 1 is a fragmentary side elevation, partly in section, of as much of a firearm as is necessary to show the application of the present invention thereto.

Fig. 2 is a plan view of the improved magazine.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a section on the line 4—4 of Fig. 2.

Fig. 5 is a fragmentary section on the line 5—5 of Fig. 2.

Fig. 6 is an inverted perspective of the magazine follower.

The firearm comprises a barrel 10 suitably mounted upon a receiver 11 which houses the breech closing block indicated generally by the numeral 12. The box magazine, indicated generally by the numeral 13, is located in the lower forward portion of the receiver and may extend below the receiver as indicated in Fig. 1. Said magazine comprises the side walls 14, bottom 15, and end walls 16.

The improved devices of the present invention for retaining cartridges in this magazine comprise a pair of vertically extending plates or fingers 17 suitably secured to the side walls 14 by any desired means, such as studs 18 upon the fingers 17 which enter apertures in the side walls 14. Fingers 17 are oppositely disposed on the sides 14 of the magazine, and their upper ends curve inwardly thru cut-outs in the upper edges of

the side walls to retain cartridges, or in the absence of cartridges the spring follower, in the magazine. Being separate from the walls 14 they may be made of spring metal, and obviate the necessity for the unsatisfactory practice of hardening a portion of one of the walls 14 to serve as a retainer.

The magazine spring, identified by numeral 19, bears against a spring follower (Fig. 6) which is constructed as follows: The follower comprises a flat plate provided with a longitudinal stiffening groove having therein a forward aperture 22 and a rearward aperture 23. To guide and hold the follower against tilting, ears 24 extend upwardly from the plate at a point slightly forward from its transverse center, and in the rear thereof guide flanges 25 extend downwardly. At the rear end of the follower is a projection or tenon 26 adapted to be received in a groove 27 in the rear wall 16 of the magazine, and guide fingers 28 extend downwardly on either side of the tenon 26. Forward from the ears 24 are cut-outs 29 adapted to receive guide ribs 30 in the side walls of the magazine and to facilitate the assembly of the spring and follower in the magazine in the manner to be presently described. The fingers 28 at the rear end of the follower serve as an abutment for the end of the magazine spring 19, as shown in Fig. 5. Lugs 31 are provided upon the upper edges of the side walls 14 at a point forward from the guide ribs 30. These lugs are so located that when the magazine follower is in place they engage the edges of the plate forward from the cut-outs 29, thereby retaining the forward end of the follower in the magazine. The upper edge of the forward wall 16 of the magazine is beveled or curved, as shown in Fig. 5, to facilitate the forward and upward movement of the cartridge being removed from the magazine. It is thus apparent that, if the rear end of the magazine follower is depressed and at the same time the fingers 28 are freed from the magazine spring 19, the follower may be slid forwardly until the cut-out 29 comes below the lugs 31 and then the nose of the follower may be lifted out while the follower is again moved forwardly to clear the inwardly curv-

ing ends of fingers 17. To facilitate this operation, a pointed implement may be inserted through the aperture 23 to depress the upper end of the spring 19 to the position shown in Fig. 5.

The assembly of the spring follower in place may be accomplished simply by inserting the rear of the follower beneath the curving ends of fingers 17, depressing the nose of the follower below the lugs 31, said lugs passing through the cut-outs 29, then moving the follower rearwardly until the tenon 26 engages in the groove 27 and the end of the magazine spring 19 snaps upwardly in front of the fingers 28. The guide flanges 25 in conjunction with the ears 24 bearing against the side walls 14 of the magazine effectively prevent any such tilting of the follower as would jam the follower in the magazine and prevent the proper feeding of cartridges. The accurate functioning of the cartridge feeding, as well as convenient assembly and disassembly, is thus insured.

While one embodiment only of the invention has been illustrated in the drawings and described herein, this embodiment is to be understood as merely typical and representative of an invention which may take many other forms, all falling within the scope of the appended claims.

What is claimed is:

1. In a box magazine for firearms, a spring follower provided at one end with downwardly extending fingers adapted for engagement by the end of a leaf spring whereby the follower is retained in the magazine, and an aperture in the follower adapted to receive an implement whereby said fingers are disengaged from such spring to permit removal of the follower.

2. In a box magazine for firearms a spring follower comprising a cartridge supporting plate, lateral guide flanges extending upwardly and downwardly from said plate, a guide tenon projecting rearwardly from said plate, spring engaging fingers extending downwardly adjacent said tenon, and an aperture in said plate adapted to receive an implement for manipulation of a spring in engagement with said fingers.

3. In a box magazine for firearms, a spring follower comprising a cartridge supporting plate having lateral cut-outs near its forward end, ribs on the side walls of the magazine box adapted to be received in said cut-outs, lugs at the top of said side walls forward from said ribs and adapted to retain said follower when in normal position by engagement therewith forward from said cut-outs but to pass through said cut-outs when the follower is moved to an abnormal forward position.

4. In a box magazine for firearms, a spring follower comprising a cartridge supporting plate having lateral cut-outs near its forward

end, ribs on the side walls of the magazine box adapted to be received in said cut-outs, lugs at the top of said side walls forward from said ribs and adapted to retain said follower when in normal position by engagement therewith forward from said cut-outs but to pass through said cut-outs when the follower is moved to an abnormal position and means on said follower normally retaining it against movement to such abnormal position.

5. In a magazine for firearms, a box having side walls a spring follower in said box, cooperating means on the walls of said box and on said follower preventing movement of the follower upward and out of the magazine when in normal longitudinal position but permitting such movement when the follower is moved forward from normal position, and means normally preventing such forward movement of the follower.

CRAWFORD C. LOOMIS.