COMBINATION OF CARTRIDGE CLIP AND FOLLOWER

Filed Feb. 14, 1929

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

INVENTOR.

John D. Pedersen

BY Rapin & Keal

ATTORNEYS.
This invention relates to improvements in magazine rifles and more particularly to the combination with a form of cartridge clip which is adapted to be charged with its cartridges into the magazine chamber of the rifle of a form of follower separate from the clip for supporting and feeding the cartridges while in said magazine chamber.

An object of the invention is to provide a symmetrically constructed clip for holding a double row stack of cartridges in staggered relation whereby said clip may be charged into the magazine, either side first.

A further object is to provide a follower of such construction that both rows of cartridges of said charged clip will be similarly supported and fed through the magazine irrespective of whether the staggered of said rows be right or left handed. Accordingly, the follower has a step for engaging the bottom of the double row stack, which step may be shifted automatically to a right or left hand position so as to accommodate itself properly to the arrangement of the staggered rows.

These features will contribute to the ease and rapidity with which the rifle may be charged with a fresh clip of cartridges, since the soldier will not have to give any attention to which side of a loaded clip he introduces into the magazine chamber.

Other objects and advantages of the invention will become apparent from the following description when taken in connection with the accompanying drawings which are illustrative of the embodiment at present preferred.

Fig. 1 is a side elevation of a loaded clip; Fig. 2 is a rear view thereof; Fig. 3 is a front view thereof; Fig. 4 is a top view thereof; Fig. 5 is a horizontal section through the clip along line 5—5 of Fig. 2; Fig. 6 is a detail vertical section through a portion of the clip along line 6—6 of Fig. 4; Fig. 7 is a sectional view through a magazine chamber of a rifle showing a follower mechanism and in dotted lines a loaded clip; Fig. 8 is a view looking down from above into the magazine chamber shown in Fig. 7 with the clip removed; Fig. 9 is a side elevation of the follower detached from its supporting levers; Fig. 10 is an end view of said follower; Fig. 11 is an illustrative view similar to Fig. 10 showing the follower with its step in left hand position; Fig. 12 is a similar view showing the follower with its step in right hand position; and Fig. 13 is a detached view of one of the springs which acts on the shiftable step of the follower.

Referring more particularly to the drawings, the clip comprises a back portion 1, and side portions 2 and 3 constituting a receptacle open at the top, bottom and front end. It will be understood that the side portions 2 and 3 are preferably of spring metal and in slightly converging relation so as to exert a side spring pressure upon the stack of cartridges contained within the clip. The cartridges in the clip are indicated at 5 and are arranged in a double staggered row as shown. The cartridges have adjacent their bases the usual grooved portions 6 which are engageable by rib portions 7 and 8 of said clip sides so as to assist in retaining the cartridges in the clip.

It will be noted in Fig. 6 that the ribs 7 and 6 stop short of the uppermost side of the clip whereby the uppermost cartridge of the stack is clear of either of said ribs 6 and 7 and will be free to be thrust forwardly out of the clip for loading.

The clip is symmetrically constructed as shown, its upper and lower sides being exactly the same. At the top, the sides turn inwardly at 2' and 3' and at the bottom they likewise turn inwardly at 2'' and 3''. The back of the clip is cut away at 1' and 1'' so as to provide an opportunity for the bolt of the rifle to engage the topmost cartridge of the stack in the clip and load it into the barrel chamber.

The sides of the clip about midway between their top and bottom edges are provided with projecting lip portions 9 and 10 which are adapted to be engaged behind ledges 11 and 12 (see Fig. 8) in the magazine.
chamber of the gun when the clip is charged into said chamber for holding the sides of said clip from moving closer together after one or more cartridges have been removed from the clip. This insures that the alignment of the staggered columns will not be disturbed by the pressure of the clip sides. In some cases it may be desirable to have the ledges 11 and 12 actually spread apart slightly and thus relieve the pressure on the cartridges so as to permit easier feeding by the follower.

Referring to Fig. 7, the construction illustrated is analogous to that shown in my companion application Serial No. 246,827, filed January 14, 1928, wherein the frame of the rifle is indicated at 14 and has an open passage therethrough from top to bottom constituting the magazine chamber 15. A bolt 16 reciprocates across the top of the magazine chamber for loading cartridges from the clip into the barrel indicated at 17. The bottom of the magazine is preferably closed by a cover member 18. The follower 19 works up and down through said magazine chamber and is supported on lever mechanism 20, 21 propelled by follower spring 22 as described in my application above referred to. 23 is a kicker member which serves to eject the empty clip at proper times. 24 is a latch for normally holding said clip in the magazine chamber and against the force of the kicker 23. It will be understood that when the last cartridge has been loaded from the clip, the follower mechanism will release the latch 24 and allow the empty clip to be discharged from the magazine chamber.

Referring to Fig. 9, the follower 19 is provided with a movable step 25 pivoted at the ends of said follower as indicated at 26 and 27. The movable step 25 is normally and yieldingly held centrally of the follower 19 as shown in Fig. 10 by small flat springs 28 and 29, one at each end of said follower, bearing against a flat bottom on said step 25. One of such leaf springs 28 is shown in Fig. 13.

The step 25 will be acted upon by the cartridges in the double row stack when the loaded clip is inserted in the magazine chamber in such a manner as to shift said step from its normal central position either into a left hand position (shown in Fig. 11) or into a right hand position (shown in Fig. 12), and thus cause the follower with its step to accommodate and fit the bottom of the double row stack both in supporting and feeding the same. It will be obvious that as the bottom of the stack comes into engagement with the follower step, the lowermost cartridge, no matter whether it be in a right hand column or left hand column, will strike the side of said step and push it to the opposite side so that said step will be in a position to support the next to the lowermost cartridge.

Thus it will be seen that the follower will automatically take care of the double row stack irrespective of the position or arrangement of the columns of said stack, and no attention will be needed by the soldier in charging the gun either to see that the clip is loaded with the columns in any rearranged position or that the clip is charged into the magazine with any particular side down.

It will be understood that in the foregoing description the use of the terms “bottom” and “top” in connection with the clip and stack of cartridges is merely for convenience in indicating the relative positions, and that no positive limitations in the invention as claimed should be construed therefrom.

What I claim is:

1. In a magazine rifle in combination, a cartridge clip containing a double row stack of cartridges in staggered relation and adapted to be introduced with said cartridges into the magazine chamber of the rifle, and a follower provided with means for presenting in the alternative a right or left handed stepped surface for engaging both rows of cartridges at the bottom of said stack.

2. In a magazine rifle in combination, a cartridge clip containing a double row stack of cartridges in staggered relation and adapted to be introduced with said cartridges into the magazine chamber of the rifle, and a follower providing a movable step which is automatically shifted to right or left hand position by its engagement with the bottom of said stack.

3. In a magazine rifle in combination, a cartridge clip containing a double row stack of cartridges in staggered relation and adapted to be introduced with said cartridges into the magazine chamber of the rifle, and a follower for said stack, a movable step normally held centrally thereof and adapted to be engaged by the bottom of said stack for being shifted to a right or left hand position on said follower.

4. In a magazine rifle in combination, a cartridge clip containing a double row stack of cartridges in staggered relation and adapted to be introduced with said cartridges into the magazine chamber of the rifle, and a follower for said stack, a step pivotally mounted thereon and yieldingly held in central position thereof, and adapted to be engaged by the bottom of said stack for being shifted to a right or left hand position on said follower.

5. In a magazine rifle in combination, a cartridge clip containing a double row stack of cartridges in staggered relation, said clip being of symmetrical construction with respect to both a horizontal plane of symmetry and a vertical plane of symmetry, whereby...
said two rows of cartridges may be stacked therein with either row in a higher position than the other row, said clip being adapted to be introduced either side first into the magazine chamber of the rifle, and a follower provided with means for presenting in the alternative a right or left handed stepped surface for engaging both rows of cartridges at the bottom of said stack.

6. In a magazine rifle, in combination, a cartridge clip arranged to hold a double row stack of cartridges in staggered relation with either of said rows in the higher position, a bolt movable across the top of said stack for loading cartridges successively and alternately from each row and from the right and left sides of a central vertical plane through said stack, and a follower at the bottom of said stack provided with means for presenting in the alternative a right or left handed stepped surface for engaging both rows of said stack and feeding the same toward said bolt.

In testimony whereof I have affixed my signature.

JOHN D. PEDERSEN.