

S. G. GREEN.
SAFETY AND GUIDE ATTACHMENT FOR MACHINE GUN MAGAZINES.
APPLICATION FILED JULY 2, 1919.

1,394,494.

Patented Oct. 18, 1921.

2 SHEETS—SHEET 1.

FIG 1

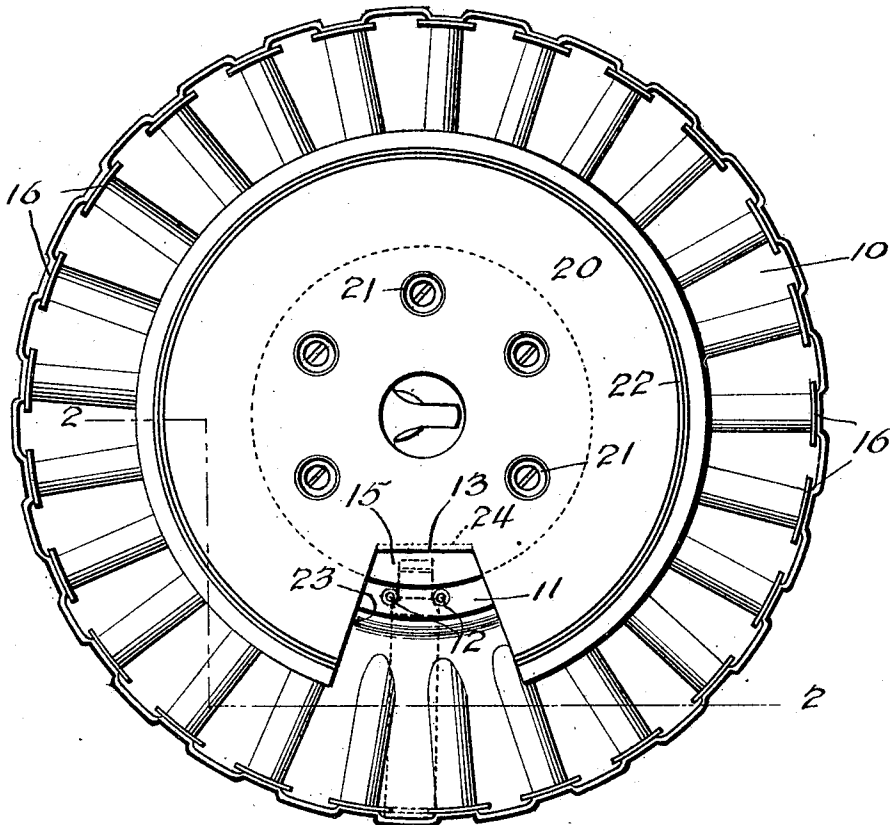


FIG 2

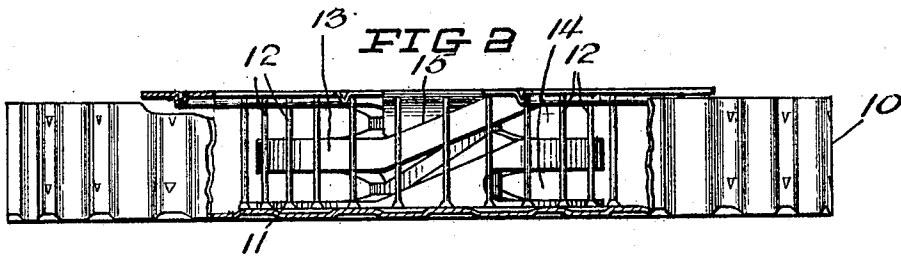


FIG 3



Inventor
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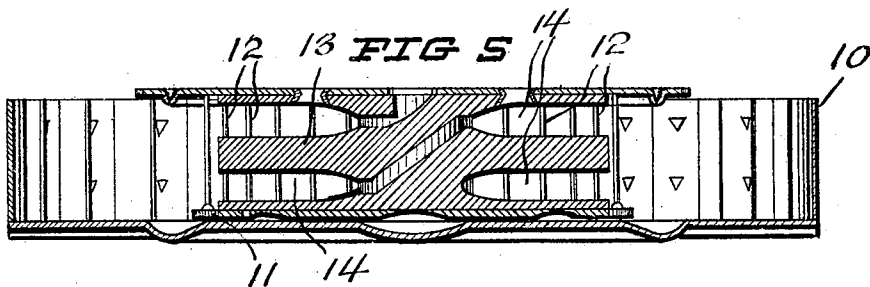
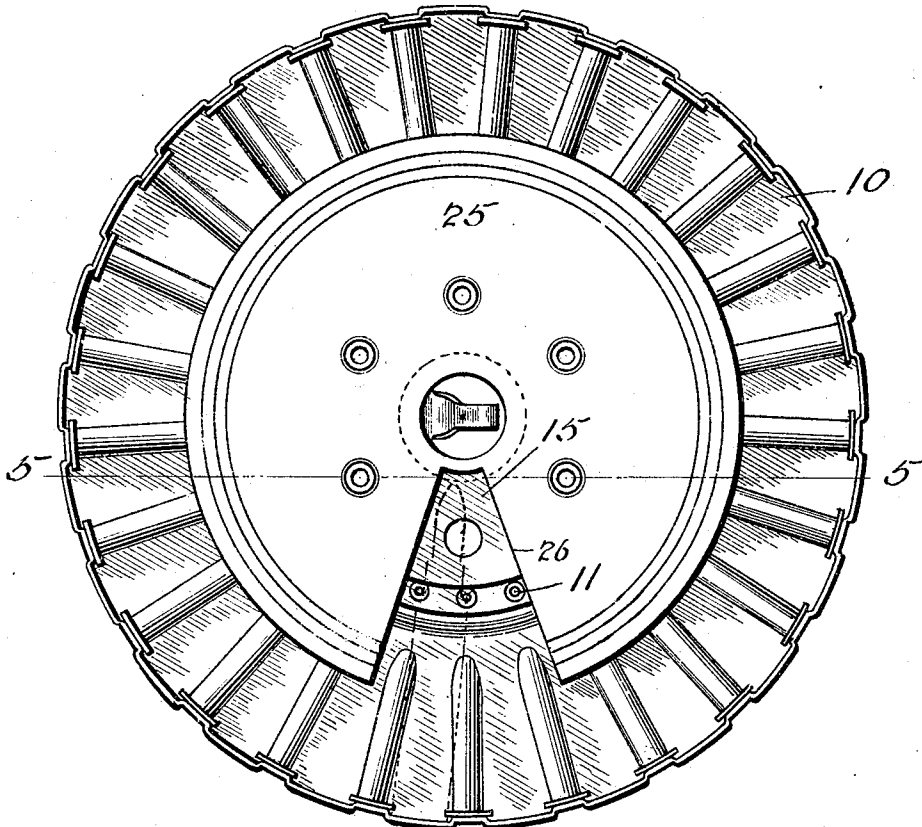
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2 SHEETS—SHEET 2.

FIG 4



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UNITED STATES PATENT OFFICE.

SAMUEL G. GREEN, OF THE UNITED STATES ARMY.

SAFETY AND GUIDE ATTACHMENT FOR MACHINE-GUN MAGAZINES.

1,394,494.

Specification of Letters Patent.

Patented Oct. 18, 1921.

Application filed July 2, 1919. Serial No. 308,302.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, SAMUEL G. GREEN, lieutenant, Ordnance Department, U. S. A., a citizen of the United States, and resident of Macon, Ga., stationed at Washington, D. C., have invented an Improvement in a Safety and Guide Attachment for Machine-Gun Magazines, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment of any royalty thereon.

This invention relates to improvements in machine guns and more particularly to safety devices to prevent the loading of magazines intended for practice or other training purposes, with ball cartridges, and also to facilitate the movement of the cartridges within the magazine when loading or firing.

The object is to provide a simple, durable and inexpensive attachment to be applied to a modern machine gun magazine that will not only aid in the movement of cartridges in the magazine, but will positively prevent the insertion of a ball cartridge into a magazine intended for blank cartridges.

A further object being to provide a construction wherein a slight modification of the attachment will permit the insertion of ball cartridges or make the device applicable to the regular service magazine, and still continue to possess the means whereby the cartridges are freely fed in either direction in the magazine.

Similar numerals indicate corresponding parts in all the figures of the drawings, in which:—

Figure 1 is an inverted plan view of the magazine of a machine gun showing the safety and guide plate in plan view.

Fig. 2 is a vertical section taken on line 2—2 of Fig. 1.

Fig. 3 is a detail edge view of the safety plate.

Fig. 4 is a view similar to Fig. 1, showing a slightly modified form of safety and guide plate.

Fig. 5 is a section on line 5—5 of Fig. 4.

Referring to the drawings by numerals 10 indicates the magazine pan of a modern machine gun, and 11 the spacer ring in which are mounted the separator-pins 12.

The magazine-center 13 is provided with the usual helical groove 14 for the reception of the noses of the cartridges, and is inside of the separator-pins 12. The magazine-center remains fixed while the pan rotates. As the magazine-pan rotates, it carries with it the interior separator-pins 12 and the cartridges, and the center 13 being held stationary the cartridges guided by the groove 14 in the magazine-center are moved toward or from the feed-way 15 in the usual manner. To provide further support for the cartridges, the magazine rim clips 16 are attached to the inner face of the magazine-pan and form guides for the heads of the cartridges.

All of the parts above described are old in the art, may be found in the present Lewis machine gun and form no part of this invention.

In maneuvers and other practice, machine guns are used with blank cartridges and magazines loaded with blanks are issued to the troops on these occasions, but up to the present time there is no attachment that is a permanent or separable part of the magazine that will positively prevent the insertion of a ball cartridge into a magazine intended for blank cartridges, and it was with a view to provide against the possibility of casualty due to the accidental as well as malicious insertion of ball cartridges into a magazine intended for blanks, that this invention was conceived.

In loading, the magazine is turned upside down and in a well known manner the magazine-center is held by the left hand and a cartridge dropped into its place with the nose of the cartridge in the feed-way or entrance to the magazine-center and its rim engaged by the rim clips.

By revolving the pan in a clock-wise direction, the cartridge is drawn down into the magazine far enough to admit another cartridge. This operation is continued until the magazine is full.

A loading machine performs the above very rapidly by mechanical means, the cartridges being fed from a chute.

When the magazine is for service use or target practice, ball cartridges are fed into the magazine either by hand or machine, and when magazine is for use in maneuvers or other practice purposes, blanks are fed into same. In both instances the magazine is the

same and as is the case at times, should ball cartridges become mixed with the blank, same will be fed to the magazine, with an obvious result.

5 By reference to the drawings, the magazine is shown in its loading position or inverted for reception of the cartridges, Fig. 1 for blank cartridges and Fig. 4 for ball cartridges.

10 The improved safety and guide attachment consists of a circular plate 20 secured by hollow rivets 21 or other suitable securing means to the magazine-center 13.

The plate 20 is provided with a bead 22 near its outer edge and is cut away at 23 in line with the feed-way 15, the depth of said cut-away portion determining the type of cartridges that may be inserted into the magazine.

20 At the inner end of the cut-away or notched-out portion 23, the plate is bent inwardly and tapered to provide a lip 24 of such shape as to snugly fit across the feed-way and diminish its length to such an extent that other than a blank cartridge, cannot be inserted or fed into the magazine.

Under ordinary conditions the plate, cut-away as shown, would exclude any but blank shells, since no cartridge longer than the distance between the inner surface of the magazine pan and the inner edge of the cut-away portion in the plate, could reach the interior of the magazine. Should however, any one through ignorance or maliciousness, attempt to insert a ball cartridge into a magazine not intended for it by tilting the cartridge and inserting its point or nose beneath the inner edge of the cut-away portion, it is then that the utility of the lip 24 will be apparent for the reason that the feed-way is entirely cut off and the entrance therein prevented by the lip and no cartridge longer than a blank can be forced into the feed-way.

45 The plate 20 is considerably larger in diameter than the magazine-center and overhangs its edge, thereby forming a guide and support for the cartridges beyond said center.

50 While the safety and guide plate is shown mounted permanently on the magazine-center, it will be clear that a plate of this character may be produced and supplied to the market as a separate article of manufacture for adjustment to the magazine during the loading operation only. In the latter instance the only difference being the loss of the benefits of the guiding bead 22 of the plate during the firing operation.

60 The operation in view of the foregoing description is obvious and it will be clear that

when the safety and guide plate is applied permanently, or as a detachable part of the magazine, it will be impossible to insert a ball cartridge into a magazine intended for blanks, and when the cartridge reaches the magazine it will be guided freely by the bead of the plate either to or from the feed-way.

If the magazine is to be filled with ball cartridges, it is simply necessary to apply a plate having a deeper cut-away portion than when the magazine is to be filled by blanks but is otherwise the same.

In Figs. 4 and 5 a slightly modified form of plate 25 as above referred to, is shown where the cut-away portion 26 is deeper than the cut-away portion in the preferred form of plate, thus permitting the insertion of ball cartridges.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A safety and guide attachment for machine gun magazines of the drum type, consisting of a plate adapted to partly cover the feed-way, and a lip carried by the plate resting across the feed-way.

2. A safety and guide attachment for machine gun magazines of the drum type, consisting of a plate mounted on the magazine center, having a cut-away portion in line with the feed-way, and a lip extending from one end of the cut-away portion across the feed-way.

3. The combination with a machine gun magazine of the drum type, having a feed-way, of a plate adapted to be mounted on the magazine center, a cut-away portion in the plate to partly expose the feed-way, and a lip extending entirely across the feed-way to prevent the insertion of ball cartridges into the magazine.

4. A safety device for use in loading machine gun magazines of the drum type, consisting of a plate adapted to be placed on the magazine-center, a cut-away portion adapted to register with the feed-way, and a depending lip adapted to diminish the length of the feed-way and prevent the entrance of a ball cartridge.

5. As an article of manufacture, a plate used in loading machine gun magazines of the drum type, having a cut-away portion adapted to rest in line with the feed-way of the magazine, a lip depending from the plate to diminish the length of the feed-way, and a guide bead on the plate outside of the peripheral edge of the magazine-center.

SAMUEL G. GREEN.