

April 1, 1958

E. G. SAKIEWITZ
CARTRIDGE INDICATING MAGAZINE FOR AUTOMATIC
PISTOLS AND OTHER FIREARMS

2,828,568

Filed June 17, 1955

2 Sheets-Sheet 1

FIG. 1

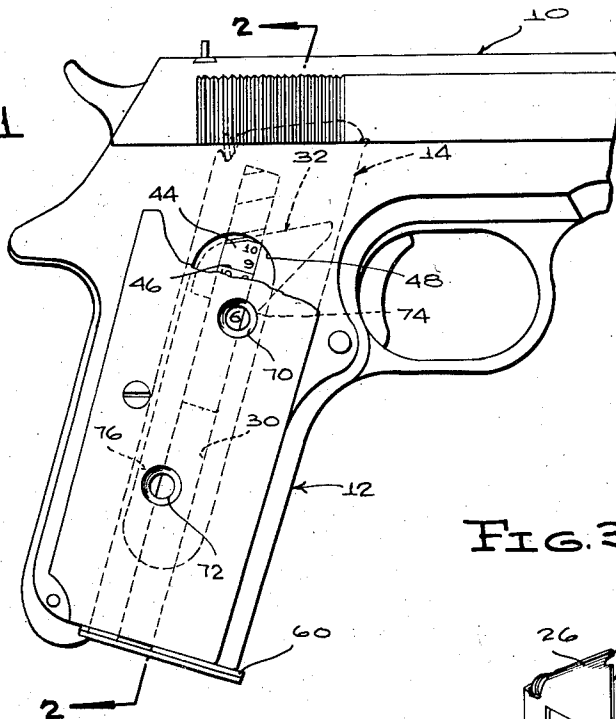


FIG. 3

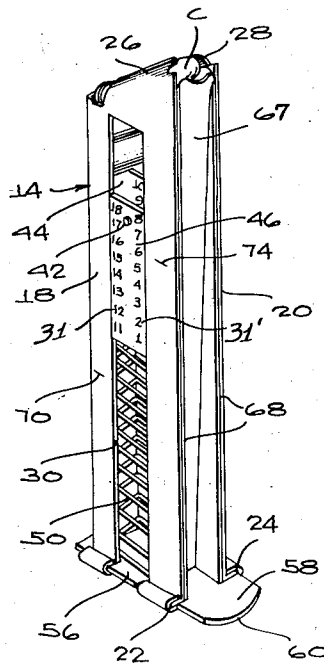
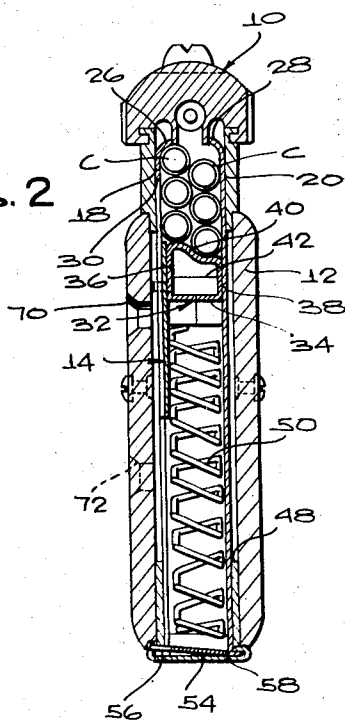


FIG. 2



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FIG. 4

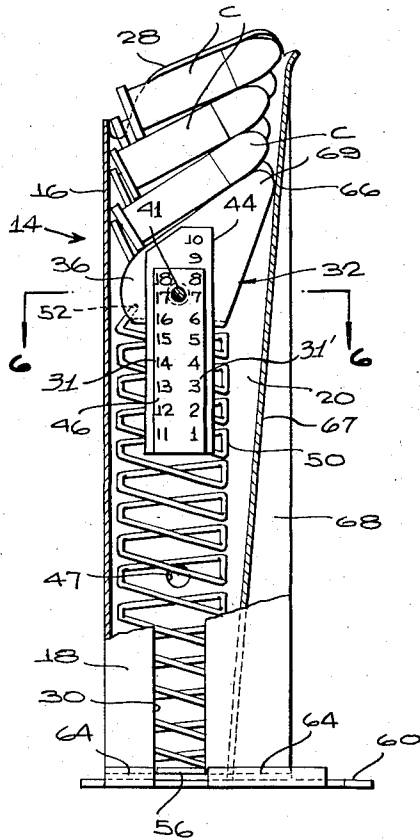


FIG. 5

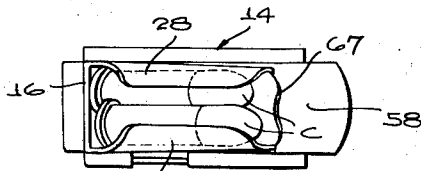


FIG. 6

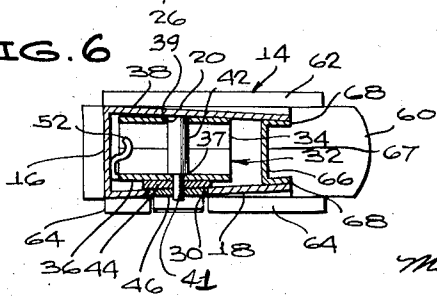
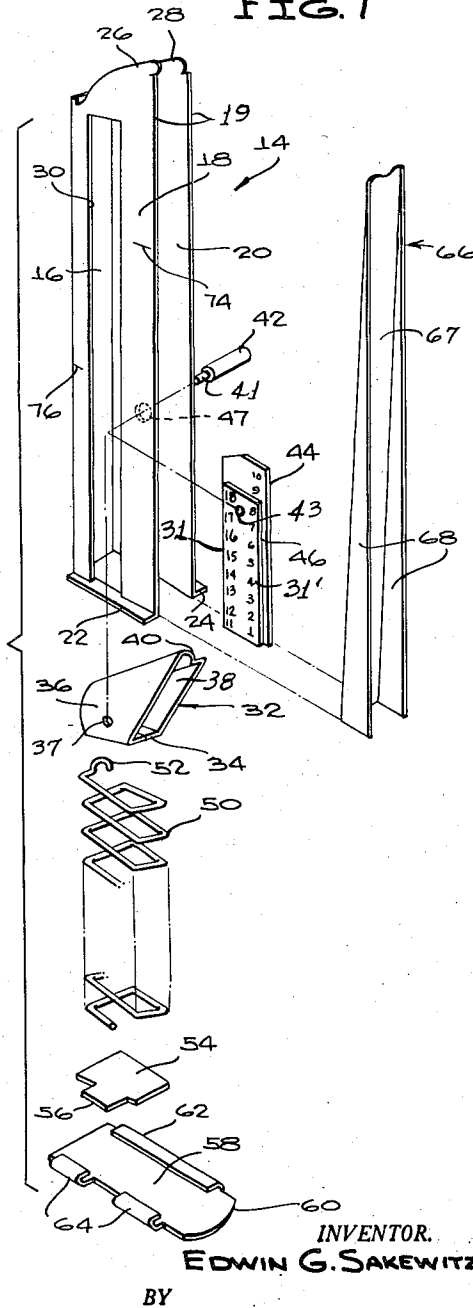


FIG. 7



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CARTRIDGE INDICATING MAGAZINE FOR AUTOMATIC PISTOLS AND OTHER FIRE-ARMS

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2 Claims. (Cl. 42—50)

This invention relates to an improved cartridge magazine structure for automatic firearms, and more particularly to a novel combination of a cartridge clip and a receiver of such an automatic pistol.

The primary object of the invention is to provide a generally improved cartridge magazine clip and an automatic firearm receiver therefor, which cooperate to positively show the user of a firearm the number of cartridges originally present in the clip and the number of cartridges remaining in the clip after the firearm has been fired several times.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a fragmentary side elevational view of an automatic pistol equipped with a magazine receiver and a clip according to the present invention;

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1;

Figure 3 is a perspective view of the magazine clip per se;

Figure 4 is an enlarged view of the magazine clip, partly in longitudinal section and partly in side elevation, plane being at right angles to that of Figure 2;

Figure 5 is a top plan view of Figure 4;

Figure 6 is a transverse sectional view on line 6—6 of Figure 4; and

Figure 7 is an exploded perspective view of the magazine clip.

Referring in detail to the drawings, the numeral 10 generally designates an automatic pistol, having a magazine receiver 12, in which is removably engaged a magazine 14.

As shown in Figure 7, the illustrated magazine clip 14 includes a body preferably formed from a single sheet of metal or the like bent to provide a flat back wall 16, and flat parallel side walls 18 and 20 lying in planes at right angles to that of the back wall. The side walls have free forward edges 19 which are parallel to the back wall 16. At their lower ends, the side walls 18, 20 are formed with laterally outwardly directed, relatively narrow flanges 22, 24, respectively. The side walls have rearwardly declining upper edges bent laterally inwardly to provide cartridge guide lips 26, 28.

A vertically elongated slot 30 is formed in side wall 18, extending upwardly from the flange 22 to a point adjacent to and spaced below the lip 26. The other side wall 20 is devoid of a slot 30.

Positioned between the side walls 18, 20 is a follower 32 adapted to support two rows of cartridges C. The follower 32 is preferably formed from a single piece of metal bent to the segmental form shown in Figure 7, and includes a bottom wall 34, parallel side walls 36, 38, and a top wall 40. The top wall 40 declines rearwardly at an acute angle in respect to the bottom wall 34 so as to dispose rows of cartridges C in corresponding forwardly inclined positions. The top wall 40, as shown in

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Figure 2, has one side thereof elevated above the other side, so as to vertically offset the rows of cartridges relative to each other.

Formed in the follower walls 36, 38 are holes 37 and 39, respectively, the hole 37 being smaller than the hole 39 in the side wall 38 of the follower. A pin 42 extends through said holes and across the follower, and has a reduced axial extension 41 at one end thereof extending through the hole 37 of side wall 36, into a registered hole 43 in a flat, elongated rectangular plate 44 which is wider than the slot 30 and has a raised guide portion 46 preferably integrally formed on the outer side of the plate 44.

As shown in Figure 4, the raised portion 46 is narrower in width than the plate 44, and is spaced at its upper end from the upper end of the plate 44, the lower ends of the portion 46 and the plate 44 being on the same level.

Marked on the outer surface of the plate 44 and of the guide portion 46 are indicia, said indicia being disposed in vertically, laterally spaced rows along the vertical edges thereof. Most of the indicia are on the guide portion 46, but the indicia of one row thereon are continued upwardly onto the part of the plate 44 above the guide portion 46. The indicia are in ascending order along the forward edge of the plate 44 and portion 46 from "1" to "10." The same is true of the indicia of the rear row, these indicia ascending in value, however, from "11" to "18."

In assembling the magazine clip, the plate 44 is positioned against the inner surface of side wall 18, at opposite sides of slot 16 with the guide portion 46 in the slot 30, the plate 44 and follower 32 thereby being guided by the slot 30 during the movement of the follower 32 vertically of the magazine clip. The follower 32 pivots upon the pin 42, it should be noted, so as to compensate for the changing angular positions of the cartridge C, during firing of the firearm. The cartridges C are of the type having a circumferential rim at their base ends, and these rims cause superimposed cartridges to be disposed at progressively differing angles, as shown in Figure 4.

With the combined guide and indicator plate 44 positioned against the side wall 18, and the follower 32 disposed with its openings in registration with that of the plate 44, the pin 42 is passed through an opening 47 formed in the side wall 20, and through the follower openings, and the extension 41 in the hole 43 of the plate 44, the follower and the plate 44 are connected together, and can be moved together vertically of the clip.

A rectangular convolution expanding coil spring 50 is formed at its upper end with a hook 52 (Figure 6) engaging over one end of the bottom wall 34 of the follower 32 so as to connect the spring to the follower. The lower end of the spring rests upon a locking plate 54, having a laterally projected tongue 56 adapted to extend into the slot 30 in the side wall 18 of the clip body.

The lower end of the clip body is closed by a bottom plate 58, one end of which projects forwardly of the clip body defines a lug 60 which can be grasped when the clip is being removed from a firearm receiver.

Integrally formed on one longitudinal edge of the bottom plate 58 is an upwardly and inwardly turned hook flange 62. On the opposite longitudinal edge of the bottom plate are hook flanges 64 spaced apart a distance corresponding substantially to the width of the slot 30.

The bottom plate 58 is slid into position with its flanges 62 and 64, 64 engaging over the lateral flanges 22, 24 on the lower ends of the side walls of the clip body. Thereafter, the locking plate 54 is dropped into place over the bottom plate 58, with its tongue 56 extending through the slot 30 in the space between flanges 62, 64, 64 thus locking the bottom plate 58 in position.

A front wall structure of the clip body, generally designated 66, comprises, as shown in Figure 4, an in-

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clined wall 67 having triangular side flanges 68 projecting forwardly therefrom. The structure 66 is disposed between the clip body side walls 18 and 20 and the flanges 68 are secured to the side walls 18 and 20, in suitable manner, with the wall 67 in forwardly inclined relation to the back wall 16 of the clip body, so that the interior of the clip increases in depth from its lower end to its upper end.

An important characteristic of the invention, shown to particular advantage in Figure 4, derives from the forward inclination of the front wall 67 with the pivotal mounting of the follower 32 and the presence on the follower 32 of a nose-like projection 69 at the upper forward corner of the follower, which is cammingly engaged against the rear side of the front wall 67. By reason of this arrangement, when the clip is filled with the maximum number of cartridges, the follower 32 will be in its lowermost position. Due to the progressive reduction in the cross section of the interior of the clip in a direction toward the lower end thereof, the follower 32 will be pivoted rearwardly in a counterclockwise direction about its axis 42, from the position thereof shown in Figure 4. As a result, the lowermost cartridges will be disposed at steep angles of forward inclination. This is of importance, in view of the fact that, as previously noted herein, cartridges at successively higher levels are disposed, due to the projecting rims at the bases thereof, at progressively reduced angles of inclination, with the uppermost cartridges being nearest to horizontal, to properly dispose the same for movement into position to be discharged.

As the follower 32 moves upwardly as a result of the firing of the firearm and discharge from the clip of upper cartridges, it pivots in a clockwise direction with each movement thereof in an upward direction, to compensate for the reduction in the number of superimposed cartridges.

As shown in Figure 1, a wall of the firearm receiver 12 is provided with windows or viewing openings 70, 72 which are spaced vertically of the receiver and are laterally offset relative to one another and to the line of sliding movement of the follower 32 the magazine clip 14. The two side by side rows 31 and 31' of indicia are respectively aligned with the windows 70, 72 respectively. Accordingly, when the follower 32 is in its lowermost position, that is, when the clip is fully loaded with the maximum number of cartridges, as for example 18 of them, the numerical indicium 18 will be visible through the window 72. As successive cartridges are discharged from the clip, succeeding indicia of the left-hand row 31 of Figure 4, in descending order, will appear through window 72, down to and including the indicium "11." Then, as the indicium 11 disappears following the discharge of the next cartridge, the indicium 10, at the top of the right hand row 31' of Figure 4, will appear in the window 70. Subsequently, the indicia of the right hand row 31' will successively appear, in descending order, until, with one cartridge remaining, the indicium "1" appears in the window 70.

Thus, it can be seen at a glance how many cartridges remain in the clip, and there is no possibility of confusion on the part of the user with respect to this fact.

The arrangement is of value, in view of the fact that in a firearm of the described type, the follower obviously travels only a few inches between its lowermost and uppermost positions. Since the clip holds 18 cartridges, the construction illustrated and described enables the exact number of remaining cartridges in the clip to be visibly observed at any time, despite the relatively small length of follower travel as compared to the relatively large number of indicia which must be successively exposed.

As shown in Figures 1 and 3, vertically spaced transverse indicating lines 74, 76 are marked upon the clip body side wall 18 at opposite sides of the slot 30, at loca-

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tions which are slightly above the centers of the viewing openings 70, 72, respectively, when the clip is in position in the receiver 12. These indicating lines are so located that they are not visible through openings 70, 72.

The reason for the difference in indicating positions of lines 74, 76 and the openings 70, 72, respectively, is that all the cartridges and the follower 32, while the clip is in the firearm, are in different positions than those they occupy when the clip is out of the receiver. This is true of almost all automatic pistols in present day use.

The purpose of the two indicating lines 74 and 76 is to aid the user in inserting only a selected number of cartridges less than the total capacity of the clip. One instance in which this situation may arise is in firing on pistol ranges, having rules limiting the number of cartridges that may be put in the clip at a time. Situations may arise on a pistol range when through hurried loading of standard clips, the user may insert one cartridge too many or one less than the required number, in violation of the rules. In any event, it is a desirable policy that one know at all times the number of cartridges present in a clip, for safety reasons. Through the use of the indicating lines, registering with the numerical indicia while the clip is withdrawn from the receiver, one may insert the exact number of cartridges necessary.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claims.

What is claimed is:

1. In a cartridge magazine clip, a clip body comprising a vertical back wall, spaced side walls on and projecting forwardly from said back wall, said side walls having upper ends and lower ends, intumed cartridge positioning lips on the upper ends of the side walls, a vertical front wall secured to and extending between said side walls in forwardly spaced relation to said back wall, stop plate means engaged on the lower ends of and extending between said side walls, a cartridge follower positioned within said clip body, a vertical expanding spring in said clip body, said spring being compressed between said stop plate means and said follower, one of said side walls having therein a vertically elongated slot, a guide plate secured to one side of said follower and depending from the follower, said guide plate having a laterally offset guide portion conforming to and slidably engaged in said slot, pivot means securing said guide plate to the follower, and a nose on and projecting forwardly from said follower and engaged with said front wall, said follower having a rearwardly declining cartridge engaging top wall, and said front wall being forwardly inclined whereby the rear to front depth of the interior of the clip increases upwardly, said nose being a cam engaged with said front wall.

2. In combination a firearm receiver having a side wall, a removable clip positioned in said receiver behind said side wall, said clip comprising a clip body having a side wall confronting the receiver side wall, the clip body side wall having a slot extending vertically therein and vertically relative to the receiver side wall, a vertically spring-pressed follower in said clip body, a guide plate secured to said follower, said guide plate having a laterally offset guide portion slidably engaged in said slot, said guide plate and said guide portion having thereon two laterally spaced vertical rows of cartridge designating numerals thereon, the numerals of the rows being in the same order, and said receiver side wall having two viewing openings, the viewing openings being vertically spaced relative to each other and severally aligned with

the two rows of numerals and arranged to expose numerals in said rows.

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