PLASTIC MAGAZINE FOR CARTRIDGES FOR FIREARMS

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1 Claim. (Cl. 42—50)

ABSTRACT OF THE DISCLOSURE

A plastic magazine for cartridges for firearms including a cartridge follower and a cartridge follower spring, wherein there is provided a throat for the passage of cartridges from a staggered relationship in the lower portion of the magazine to a single-line relationship adjacent to the magazine exit lips for the easier and smoother flow of cartridges from staggered relationship into the breech of the firearm, wherein the ribs are low in the staggered areas to provide enough room for staggered cartridges and are high in the throat area, said ribs between the high and the low areas being formed on a convexo-concave curve providing for an improved easy and smooth flow for the cartridges.

This invention relates to an improvement in plastic magazines for cartridges for firearms. Such magazines can be made so inexpensively as to be thrown away and not recovered particularly under conditions of battle but also even under conditions of practice.

Prior attempts to produce plastic magazines of this nature have failed due to the fact that the cartridges are staggered in the magazine in order to provide a container for as many as possible, and when the cartridges arrive at the position of the magazine lips to be picked up by the firing mechanism such as the bolt, they tend to spread the sides of a plastic container although the usual metal container is not subject to this fault.

Therefore it is the principal object of the present invention to provide means for preventing such spread and also guiding the cartridges to rise smoothly from the staggered relationship into a single-line relationship in position to be picked up by the firing mechanism of the firearm. This is done by providing a guide construction in the magazine so that the cartridges can be loaded in staggered relationship, but when arriving at the positioning lips of the magazines smoothly flow into a single line relationship which provides for correct positioning of the cartridges as aforesaid; and the provision of such guides which are in the form of internal ribs for the magazine strengthening the walls thereof and preventing deflection. Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which:

FIG. 1 is a top plan view illustrating the new magazine;
FIG. 2 is an exploded view in perspective showing the parts which are secured together to form the magazine;
FIG. 3 is a vertical section through the magazine showing the relationship of the cartridges thereto;
FIGS. 4 and 5 are similar views with parts broken away illustrating modifications, and
FIG. 6 is a plan view illustrating a flat follower plate which may be used with the present plastic magazine.

The construction of the magazine may be such that two parts are molded separately in single pieces as shown at 10 and 12, these parts being secured together as by cementing to complete the magazine after however inserting the follower 14, FIG. 6, and the follower plate spring 16 as shown in FIG. 3.

Each of the parts 10 and 12 is complete in and of itself including peripheral side flanges as at 18 for instance and also bottom flanges 20 to complete the magazine when the parts are secured together. This is illustrative only however as the article can be made in any way which may be found to be desirable or convenient.

The essential characteristics of the new magazine reside in the formation of ribs which are generally indicated at 22 and 24. These ribs may extend the entire length of the magazine parts 10 and 12 and thereby form strengthening ribs. The follower plate has notches 26 to accommodate these ribs and it moves freely up and down as usual.

At the upper or open end of the magazine adjacent the lips 28, the ribs 22 and 24 converge inwardly as at 30, 32 terminating in a guide passage limiting the cartridges as they rise from their staggered position illustrated at 34 in FIG. 3 for instance to a single-line position as at 36. This position is in line with the bolt or other carrying mechanism of the firearm.

Not only do the convergent areas at 30 and 32 guide the cartridges in the single line formation but they also add extra stiffness adjacent the lips 28, 28 and this is exactly the area where such extra stiffness is desirable inasmuch as the cartridges tend to distort the magazine walls where they change from their staggered position at 34 to the single line position. This is prevented by the guide ribs of the present construction.

As shown in FIGS. 4 and 5, the invention can be modified in such a way as to provide for positioning of the cartridges either left-hand or right-hand with respect to the magazine, required by the firing mechanism of certain firearms. In order to do this, the lips at 40 are located to one side of a central plane of the magazine and a rib such as at 42 extending the length of the magazine wall 44 has a surface at 46 which curves inwardly toward the opposite wall 48 of the magazine. Wall 48 may also be provided with stiffening grooves if this should be found to be desirable but the effect of the widened portion 50 of rib 42 is to align the staggered cartridges at 52 into a single-line formation at 54 for the purpose described above, and which will be clear to those skilled in the art.

FIG. 5 shows the opposite conformation where it is desired to feed the cartridges in a right-hand position, the lips of the magazine at 52 being located at the right-hand side thereof and the rib 54 being located on the left-hand wall of the magazine, and having the inclined surface 56 which is equivalent to that at 46.

The notches 26 and the follower plate 14 are preferably of a depth so that they can accommodate the enlarged portions of the ribs and in fact the follower must be capable of rising to such an extent as to place the final cartridge in the position 36 of FIG. 3 or 54 of FIG. 4.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claim.

What I claim is:

1. A plastic magazine for cartridges for firearms comprising a relatively flat container including spaced generally parallel side walls, a cartridge follower, a cartridge follower spring, said magazine having a closed end and a partially open opposite end, the follower being outwardly directed cartridge-retaining lips at the open end thereof, said lips being spaced and offset to one side of a central plane parallel to the side walls, one lip leading directly from one side wall, a pair of spaced ribs on the other side wall only of
said magazine, said ribs each including an edge having a relatively low portion providing for loading of cartridges in staggered relation in said magazine, said rib edge merging into a relatively high portion adjacent the lips guiding the staggered cartridges, in conjunction with said one wall into a single-line relationship at a point spaced from said lips, the edges of the ribs between the low and high portions being formed on a concave curve adjacent the low portion changing in a smooth continuous unbroken line into a convex curve adjacent the high portion, the latter then terminating in a straight line to the other lip for smooth and easy flow of cartridges from the staggered incline to the single-line relation, the other of said lips being located at the terminus of the ribs, the single-line relation having a length of at least two cartridges guided to the lips between the ribs and the said one wall, the distance between the high portion of the rib and said one wall being substantially uniform and the same as the diameter of the cartridges for a distance equal to twice the diameter of the cartridges.

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