

Dec. 5, 1967

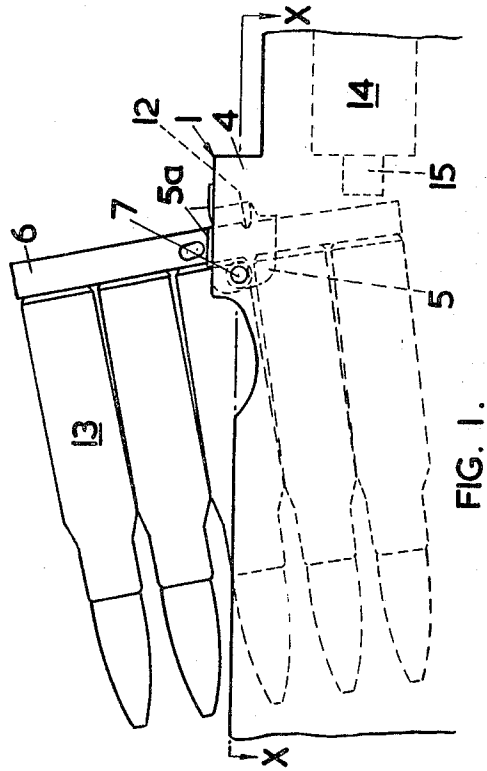
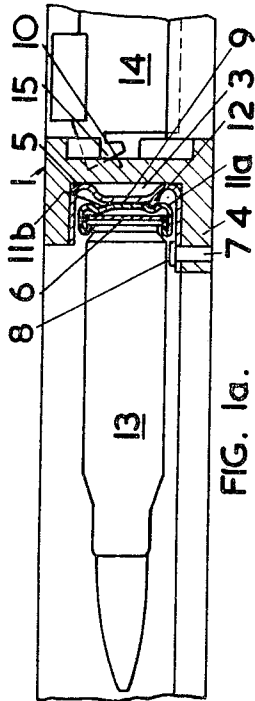
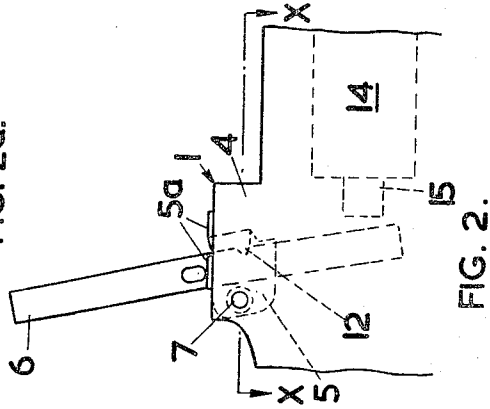
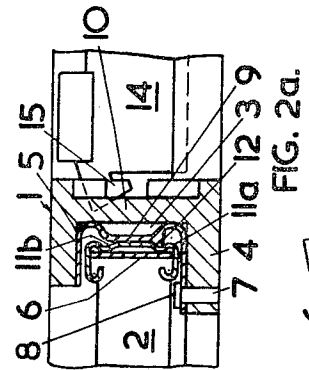
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3,355,832

CHARGER GUIDE FOR A BOLT OPERATED FIREARM

Filed Nov. 9, 1966

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

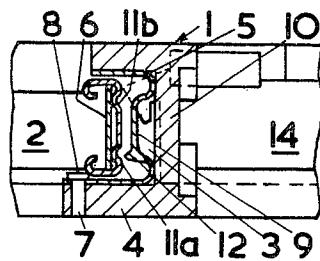


FIG. 3a.

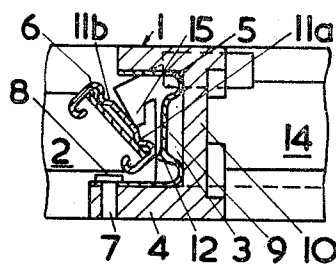


FIG. 4a.

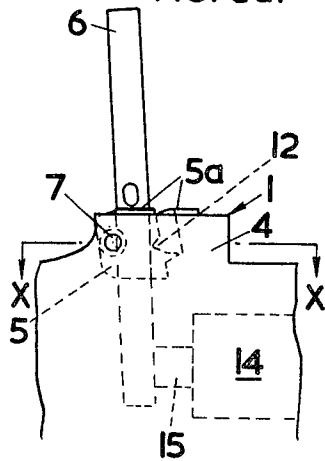


FIG. 3.

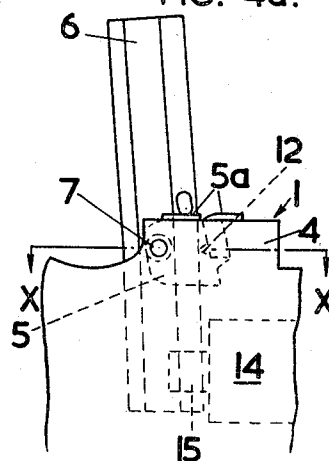


FIG. 4.

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**CHARGER GUIDE FOR A BOLT OPERATED
 FIREARM**

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Claims priority, application Great Britain, Nov. 10, 1965, 47,688/65

5 Claims. (Cl. 42—18)

This invention relates to small arms and is concerned with an arrangement for converting the charger guide, or bridge, of a weapon to accept a smaller size of cartridge clip. The charger guide, which is fitted to a weapon above and just rearward of the magazine opening and has a forwardly facing recess into which a cartridge clip is inserted preparatory to recharging the magazine, may, among other items, require conversion when a weapon is converted to fire a different size or type of ammunition. Such conversion is required, for example, when a rifle, designed to fire .303-inch, rimmed ammunition, is converted to fire 7.62-millimetre, rimless cartridges. The present invention provides a means of achieving this conversion in a bolt operated weapon and, at the same time, providing automatic ejection of the empty clip on operation of the bolt.

The invention comprises the provision of conversion liner fixed into the recess of the charger guide body of a bolt operated weapon to reduce the effective dimensions of the recess to fit a smaller size of cartridge clip; and a projection extending inwardly from one side wall of the recess, which projection serves the dual purpose of a stop for restraining the clip from falling forward out of the recess and a fulcrum about which the clip may be rotated by forward pressure applied thereto, by operation of the bolt, to eject the clip.

In a convenient arrangement, the projection consists of the head of a securing member, such as rivet, bolt or the like, inserted in the side wall of the charger guide to fix the liner in position. The securing member is, of course, located sufficiently far from the rear wall of the charger guide to allow the insertion of the clip behind it.

A further advantage may be obtained by the provision of a projection, or pip, extending forwardly from the rear, inner face of the liner to engage in a recess in the rear face of the clip. This recess may conveniently be one of the two longitudinal grooves which are normally present in the rear face of the clip, preferably the groove nearer that wall of the charger guide in which the securing member is located. With this arrangement the clip is supported between the head of the securing member and the pip which, together, exert considerable restraint against inadvertent separation of the clip from the charger guide by twisting about the head of the securing member.

The above arrangements ensure that the clip is firmly supported in the charger guide during the process of charging the magazine and also minimises the possibility of inadvertent separation of the empty clip from the guide, after charging, and its consequent fouling of the bolt by falling into the boltway.

One form of charger guide in accordance with the invention, and intended as part of the conversion of a .303-inch rifle to fire 7.62-millimetre rimless ammunition, will now be more particularly described by way of example only, with reference to the accompanying drawings in which:

FIGS. 1 to 4 are side elevations of that portion of a rifle adjacent the charger guide, showing four different stages in the loading process, and

FIGS. 1a to 4a are sectional views taken on the lines X—X of FIGS. 1 to 4 respectively.

The main body of the charger guide 1, which consists of the original .303-inch guide, is a rectangular channel shaped member mounted above the rearward end of the magazine opening 2 of the rifle; the channel 3, which constitutes the charger guide recess, being substantially vertical in its front face. One side wall 4 of the recess 3 extends somewhat further, forwardly, than the other. A liner 5 of sufficient thickness to reduce the dimensions of the guide to suit the smaller 7.62 mm. cartridge clip 6, is fixed into the charger guide recess 3 by a single rivet 7 inserted into the longer side wall 4 at a point near its forward extremity, the upper edge of the liner 5 being lipped over onto the upper surfaces of the walls of the charger-guide body 1 as shown at 5a (FIGS. 1 to 4). The rivet head 8 is located internally of the liner 5 and is large enough to form an abutment for the forward edge of a cartridge clip 6 inserted, rearward thereof, into the guide body 1. The rear wall 9 of the liner 5 is of channel form to lift it forward of the rear wall 10 of the guide body 1 by an amount such that the clip 6 fits snugly between the liner wall 9 and the rivet head 8.

Cartridge clips are provided, for constructional purposes, with two longitudinal grooves 11a, 11b in the outer surface which will be the rearward surface when inserted in the charger guide body 1. A small pip 12, projecting forwardly from the rear wall 9 of the liner 5, is arranged to engage the groove 11a which is nearer that side 4 of the guide body 1 on which the rivet head is located. The pip 12 is located below the plane, through the rivet axis, normal to the rear face of the liner in order to assist ejection as will be later described.

In operation a cartridge clip 6 is inserted into the guide behind the rivet head 8 and is firmly supported by the combined action of the rivet head 8 and the pip 12 (FIGS. 1 and 2). After transfer of the cartridges 13 to the magazine the empty clip 6 may be ejected by the forwarded movement of the bolt 14 when the first round is fed from the magazine into the chamber. The extractor 15, carried by the bolt 14, contacts the rear face of the lower end of the clip 6 and, as it moves forward, the clip 6 firstly pivots (FIG. 3), upon the rivet head 8, about a horizontal axis to disengage the groove 11a from the pip 12, owing to the lower disposition of the pip 12 already referred to. Subsequent forward motion of the bolt 14 causes the clip 6 to twist about an oblique axis through the rivet head 8 for ejection (FIGS. 4 and 4a).

Though preferable, it is not essential that the pip 12 should be below the rivet head 8, since the clip 6 would normally have sufficient resilience to spring clear of the pip 12 under the pressure of the bolt 14. It will also be clear that, although use of the rivet head 8 as a stop and fulcrum provides a neat and convenient solution, it would be possible to use some other type of projection in conjunction with alternative means of fixing the liner 5 in the recess 3. It will be further understood that this invention may be applicable to other conversions wherein the size of the cartridge clip has been reduced.

We claim:

1. A charger guide for a bolt operated small arms weapon comprising a charger guide body in one side of which is formed a charger guide recess; a conversion liner fixed into said recess to reduce the effective dimensions thereof to fit a smaller size of cartridge clip; and a projection extending inwardly from one side wall of the recess to serve the dual purpose of a stop for restraining the clip from falling forward out of the recess and a fulcrum about which the clip can be rotated by forward pressure applied thereto, by operation of the bolt, to eject the cartridge clip.

3

2. A charger guide as claimed in claim 1 having a headed securing member inserted in the side wall of the charger guide body to fix the liner in position, the head of the securing member constituting the said projection.

3. A charger guide as claimed in claim 1 incorporating a pip extending forwardly from the rear, inner face of the conversion liner for engagement in a recess in the rear face of the cartridge clip.

4. A charger guide as claimed in claim 3 wherein the pip is laterally displaced toward one side of the rear wall of the conversion liner, nearer to that wall of the charger guide body in which the projection is located.

5. A charger guide for use in a bolt operated small arms weapon comprising a charger guide body in one side of which is formed a charger guide recess for the reception of a cartridge clip; a conversion liner fixed into said recess to reduce the effective dimensions thereof to fit a smaller size of cartridge clip; a headed securing

4

member inserted in the side wall of the charger guide body to fix the liner in position the head of said member being located on the inner surface of the liner to serve the dual purpose of a stop for restraining the clip from falling forward out of the recess and a fulcrum about which the clip can be rotated by forward pressure applied thereto, by operation of the bolt, to eject the clip; and a pip extending forwardly from the rear wall of the liner and laterally displaced toward the wall of the charger guide body in which the securing member is inserted, which pip is arranged to engage in a recess in the rear face of the clip and to cooperate with the head of the securing member to hold the clip firmly in the recess until ejected by operation of the bolt.

No references cited.

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