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Musgrave

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[54] **CLIP HOLDING GUIDE**

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[52] **U.S. Cl.** **42/87**

[51] **Int. Cl.**..... **F41c 27/00,** F42b 39/06

[58] **Field of Search** 42/87, 88, 50, 18

[56] **References Cited**

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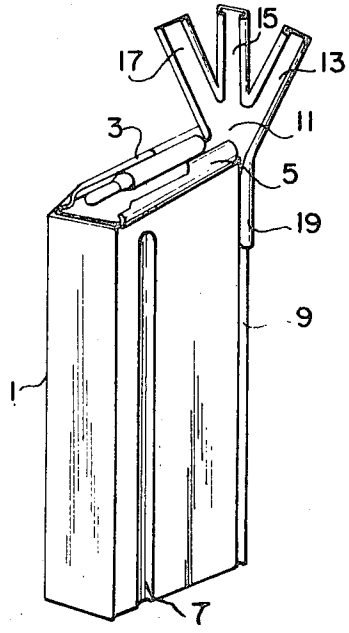
Primary Examiner—Benjamin A. Borchelt

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[57] **ABSTRACT**

A clip guide for filling a cartridge magazine. The guide permits the use of several dissimilar clips with one type of magazine, or it can be made for filling different magazines. To facilitate filling, the guide can have means to slightly depress the follower of the empty magazine.

17 Claims, 6 Drawing Figures



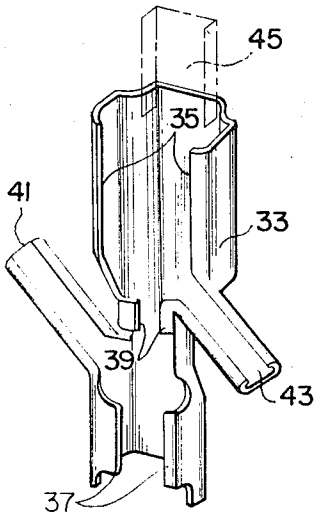


FIG. 3

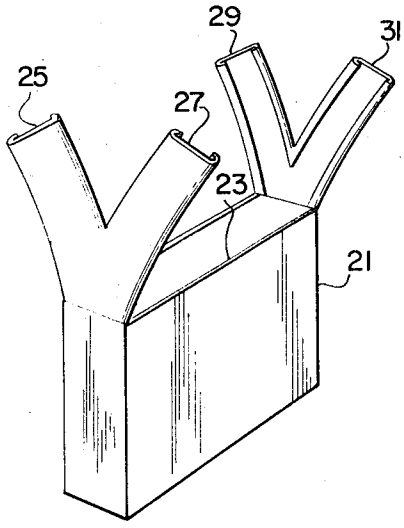


FIG. 2

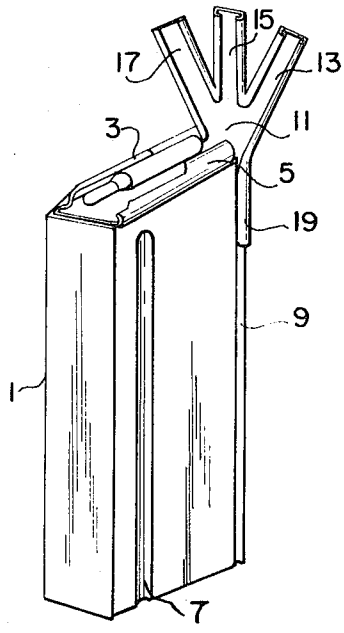


FIG. 1

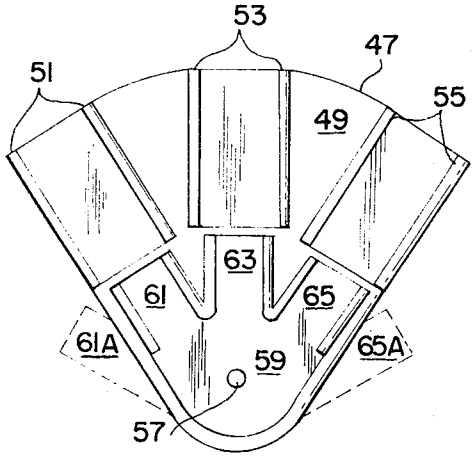
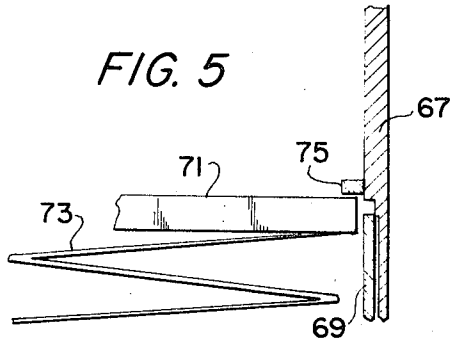


FIG. 4

FIG. 5



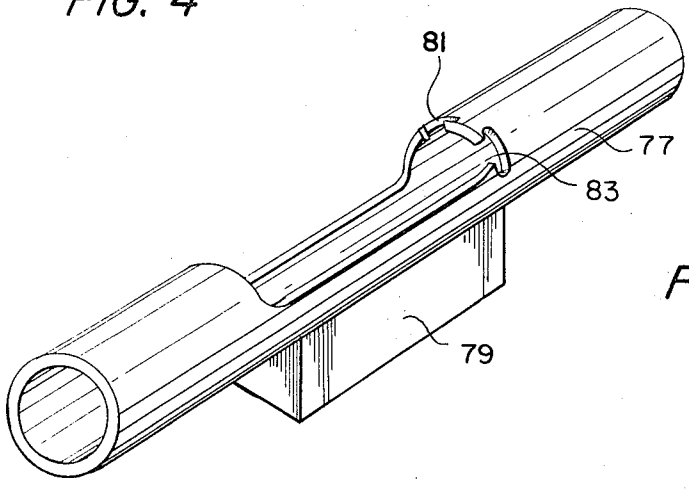


FIG. 6

CLIP HOLDING GUIDE

Cartridge magazines for firearms may be of the detachable type or they may be built into the firearm assembly. The detachable type is commonly used with military firearms and it is also widely employed for hunting and sporting firearms. Many cartridge magazines, whether detachable or built-in, can be filled with cartridges from stripper clips, a method which appeared many years ago. To use the clips with a detached magazine some simple type of guide is necessary. For the built-in type of magazine the guide is usually formed as part of the firearm. A few firearms with detachable magazines are arranged for filling the magazine from clips when either attached to, or detached from, the firearm.

This invention will be useful for those types of magazines, whether detachable or built-in, which can be filled by stripping cartridges from a clip.

The successful use of the above-described filling methods depends on the correct support of the clip while the cartridges are stripped from it into the magazines. This requires a proper relationship between the dimensions and configuration of the clip, the guide, and the magazine.

Clips suitable for a given cartridge do not always have the same dimensions and configuration. Changes introduced by various producers may result in making the clip compatible with only certain types of clip guides, and not with others. For example, substitution of plastics for metals will usually require dimensional changes which may prevent use of the clip in cartain clip guides. However, metallic clips also vary considerably, as is well known.

Cartridge magazines also vary somewhat in configuration and details. A clip guide intended for filling one model of magazine frequently cannot be used for filling others, even though the several magazines may be intended for the same cartridge.

In view of the considerable variety of clips, cartridges and magazines available at the present time, it is desired to point out that the utility of the present invention is not restricted to any particular combination of clip, cartridge, and magazine. The illustrations are for purpose of disclosure, and are not to be considered as limiting the usefulness of the invention.

A principal object of this invention is to provide a clip holding guide which will permit the use of two or more dissimilar types of stripper clips for filling a conventional cartridge magazine.

Another object is to provide a clip holding guide which will permit the use of dissimilar clips for filling two or more different cartridge magazines.

These and other objects of the present invention will be apparent upon reference to the following specification, taken in connection with the accompanying drawing, wherein:

FIG. 1 is a perspective view of a clip holding guide which is an embodiment of this invention, affixed to a typical cartridge magazine.

FIG. 2 is a perspective view of another embodiement of this invention, having different means for affixing it to a magazine.

FIG. 3 is a perspective view of another embodiement of this invention.

FIG. 4 is an elevation view of still another embodiement of this invention, for use with a plurality of clips and a plurality of magazines.

FIG. 5 is a view, partly in section, of means on a clip holding guide to slightly depress the follower of an empty cartridge magazine.

FIG. 6 is a perspective view of the receiver of a firearm, having a plurality of slots which serve as clip holding guides for filling the magazine.

Referring now to the drawings in detail, FIG. 1 shows a typical cartridge magazine **1**, having feed lips **3** and **5** and stiffening grooves **7** and **9** in each sidewall. (Only one sidewall is visible in FIG. **1**.) The construction of typical magazines is well known and need not be further detailed here.

Affixed to magazine **1** is clip holding guide **11** which has three channel clip supports **13, 15** and **17.** Clip supports of the channel type are well known and need not be further described here.

The lower portion **19** of guide **11** also comprises a channel, with edges turned inward so as to engage grooves **9,** on each side of the magazine. A suitable detent (not shown) may be provided to limit the distance which guide **11** slides down on magazine **1.** Stripper clips usually are made with small projecting stops to limit the extent to which the clips can be inserted into a support such as channel **13, 15,** or **17.** In making a guide for clips with such stops it will be necessary to so select dimensions of the clip support channels that the clip will be positioned at a proper distance from the feed mouth of the magazine. In FIG. **1,** the feed mouth is the space between feed lips **3** and **5.**

It will be noticed in FIG. **1** that clip support channels **13, 15,** and **17** converge toward the extension of the center line of said feed mouth. When cartridges are stripped from clips supported in any of the three clip support channels they will therefore be pushed into the magazine via said feed mouth.

Each of the clip support channels can be made to accommodate a different clip. There is an increasing tendency to substitute plastics for metals in expendible military items such as clips, but of course, this requires dimensional changes. Depending on details of the magazine to be filled, a clip holding guide of the type shown in FIG. **1** can be made with two or three clip supports.

If an even greater number of different clips must be accommodated, the arrangement shown in FIG. **2** may be used. FIG. **2** shows a clip holding guide **21,** comprising a collar **23,** and a plurality of clip support channels **25, 27, 29,** and **31.** Channels **25** and **27** are positioned at one end of the collar, while channels **29** and **31** are positioned at the other end of the collar. The dimensions and shape of the collar are so chosen that it can embrace the magazine with either pair of channels at the rear of the magazine. A suitable stop (not shown) can be provided, if necessary, to limit the distance which guide **21** can slide down on a magazine.

Clip support channels **25, 27, 29,** and **31** can be made so as to accept various clips. The filling of a magazine using clip guide **21** is similar to the method already described for clip guide **11,** with the exception that it is necessary to choose which orientation will be necessary, as guide **21** can be affixed to a magazine with either pair of clip guides at the rear, or stripping, position.

A guide of the type disclosed in FIG. 2 can also be adapted to accommodate cartridges supplied without clips, that is, loose cartridges. For example, support channel 31 can be so dimensioned as to serve as a guide for the head or base of the loose cartridges. At the same time, support channel 27 can guide the points of said cartridges. Together, the two can constitute a hopper for filling the magazine with loose cartridges by pressing them down through the mouth of the magazine. It is apparent that the long inside dimension of the collar would be slightly greater that the corresponding exterior dimension of the magazine, which usually is slightly greater than the overall length of the cartridge for which it is adapted. The distance between the two support channels is therefore approximately the same as the overall length of the appropriate cartridge.

In some instances it may be possible to so design collar 23 as to make guide 21 compatible with two or more different magazines.

FIG. 3 shows another arrangement, which can accommodate two clips to two magazines. A clip guide 33 is made with two channel portions 35 and 37 for attaching the guide to magazines in the manner described for guide 11 in FIG. 1. It also has a central clip support 39 and additional clip support channels 41 and 43, each at an angle relative to support 39.

Assuming that guide 33 is affixed to a suitable magazine by channel portion 37, a stripper clip can be inserted from above in the usual manner as indicated by the broken lines and numeral 45, the clip being supported by central clip support 39.

While the guide is so affixed to a suitable magazine a clip could be inserted into clip support channel 41 which can be made so as to accept a different clip from that accepted by central clip support 39.

Guide 33 can be used with a second, different type of magazine. The guide can be inverted and affixed to the magazine by channel portion 35 which engages the magazine. A clip can then be supported in central clip support 39, or a different clip can be accommodated by clip support channel 43, which might be made to accept the same clip as does channel 41. Of course, other combinations are also possible.

Clip holding guide 47 shown in FIG. 4, can be used with a plurality of clips and with a plurality of magazines. Disposed in an arc on a generally flat base 49 are a plurality of different channels 51, 53, and 55 by which the base can be affixed to various suitable magazines. Pivoted relative to base 49 by rivet 57 is plate 59, which carries a plurality of convergent clip support channels 61, 63, and 65 each of which can be made to accommodate a different clip.

In FIG. 4 it will be noticed that clip supports 61, 63, and 65 are alined with magazine attaching channels 51, 53, and 55 respectively. If plate 41 should now be rotated so that clip support 61 is positioned as indicated by the broken lines at numeral 61A, it is readily apparent that clip supports 63 and 65 would then be alined with magazine attaching channels 51 and 53 respectively.

If however, plate 41 should be rotated so that clip support 65 is positioned as indicated by the broken lines at numeral 65A, then clip supports 61 and 63 would be alined with magazine attaching channels 53 and 55, respectively. If the plate be further rotated other alinements are possible.

Of course, some suitable detent can be provided to prevent relative movement between the parts when the guide is in use. The guide is affixed to a suitable magazine by one of the channels 51, 53, or 55, and then a clip can be inserted into a suitable support, either 61, 63, or 65, which will then be alined with the channel on the magazine. Cartridges can then be stripped from the clip in the usual manner.

Although not shown in the drawings, it is readily apparent that the relative motion in the embodiement in FIG. 4 could be sliding motion instead of pivoting, or rotary motion.

In filling a cartridge magazine by stripping cartridges from a clip it sometimes happens that the initial resistence offered by the spring-loaded magazine follower makes stripping difficult. The arrangement shown in FIG. 5 eases this difficulty. The clip guide 67 is affixed to a magazine casing in contact with its rear wall 69. Within the casing are the usual cartridge follower 71 and follower spring 73. Guide 67 has a stud 75 which contacts the rear edge of follower 71 as the guide is affixed to the empty magazine in the usual manner by sliding it down on the casing. Although the follower is depressed only slightly, much less than the diameter of a cartridge, the stripping of the first cartridge is thereby made considerably easier. The distance the follower is depressed is indicated by the slight gap between guide 67 and rear wall 69.

FIG. 6 shows a typical firearm receiver 77 having an integral box magazine 79 below it. The receiver also has two clips slots 81 and 83 which converge toward the mouth of the magazine, within the receiver. The slots can be made to accommodate different clips. Filling of the magazine is accomplished in the wellknown manner by inserting a clip in either slot and stripping cartridges from it into the magazine.

What I claim is:

1. A clip holding guide comprising:

means for attaching said guide to a magazine and a plurality of convergent clip support means, each positionally adapted for retaining a cartridge clip in a loading position relative to said magazine when said guide is attached to said magazine.

2. A clip holding guide as set forth in claim 1 further characterized by each of said plurality of clip support means being dissimilar from the remainder of said plurality.

3. A clip holding guide as set forth in claim 1 further characterized by the extension of the longitudinal center lines of each of said plurality of clip support means intersecting substantially at the extension of the longitudinal center line of a feed mouth of said magazine, when said guide is attached to said magazine.

4. A clip holding guide as set forth in claim 1 further characterized by said attaching means and said plurality of clip support means being integral.

5. A clip holding guide as set forth in claim 1 further characterized by said attaching means and said plurality of clip support means comprising parts of the receiver of a firearm.

6. A clip holding guide as set forth in claim 1 further characterized by said attaching means being plural and by said plurality of clip support means being adapted for relative motion therewith, whereby any of said attaching means can be alined with said clip support means.

7. A clip holding guide as set forth in claim 1 further characterized by said attaching means being plural, dissimilar, and convergent and by said plurality of clip support means being adapted for relative angular motion therewith, whereby any of said attaching means can be alined with any of said clip support means.

8. A clip holding guide as set forth in claim 1 further characterized by said attaching means comprising a collar adapted for embracing said magazine and having means to limit the extent to which said magazine can be inserted into said collar.

9. A clip holding guide as set forth in claim 1 further characterized by said attaching means comprising a collar adapted for embracing said magazine and having additional clip support means positioned on said collar opposite to the said plurality of clip support means.

10. A clip holding guide as set forth in claim 1 further characterized by said attaching means comprising a collar adapted for embracing said magazine and having additional clip support means positioned on said collar opposite to the said plurality of clip support means, each said clip support means being dissimilar from the remaining clip support means on said guide.

11. A clip holding guide as set forth in claim 1 further characterized by said attaching means comprising a collar adapted for embracing said magazine and having cartridge-head guide means positioned thereon opposite to one of said plurality of clip support means.

12. A clip holding guide comprising: first end means for attaching said guide to a magazine, second end means for attaching said guide to a magazine, said second means being disposed oppositely to said first means on said guide; first support means positionally adapted for retaining a cartridge clip in a loading position when said guide is attached to a magazine by one of said first and said second end means; second clip support means positionally adapted for retaining a cartridge clip in a loading position when said guide is attached to a magazine by said first end means; and third clip support means positionally adapted for retaining a cartridge clip in a loading position when said guide is attached to a magazine by said second end means.

13. A clip holding guide as set forth in claim 12 further characterized by said first clip support means being dissimilar from said second and said third clip support means.

14. A clip holding guide as set forth in claim 12 further characterized by said first and said second attaching means and said first, said second, and said third clip support means being integral.

15. A clip holding guide as set forth in claim 12 further characterized by said first attaching means being dissimilar from said second attaching means.

16. A clip holding guide comprising: means for attaching said guide to a magazine; means for supporting a clip in a loading position relative to said magazine; and means for depressing the follower of said magazine when said guide is attached to said magazine while said magazine is empty.

17. A clip holding guide as set forth in claim 16 further characterized by said attaching means, said clip support means, and said follower depressing means being integral.

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