July 1, 1958 J. F. THOMPSON 2,840,944

ADAPTOR FOR A MAGAZINE

Filed March 30, 1954

FIG. 1.

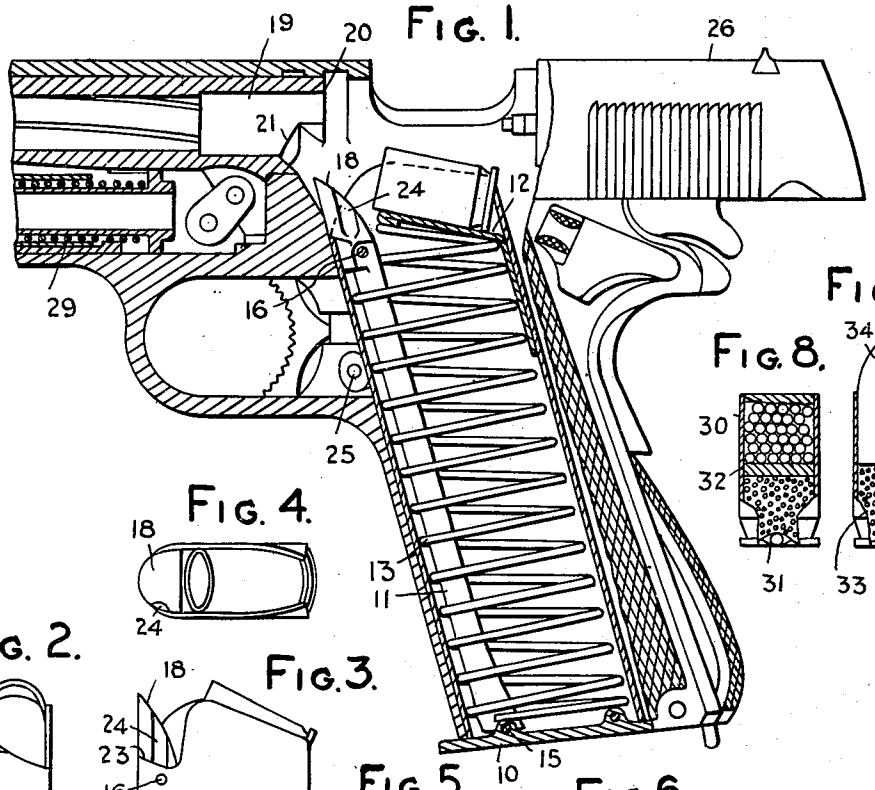


FIG. 9.

FIG. 8.

FIG. 4.

FIG. 2.

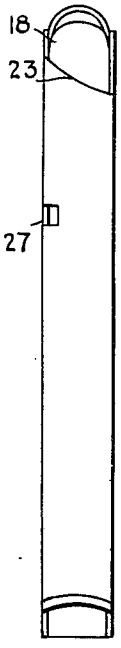


FIG. 3.

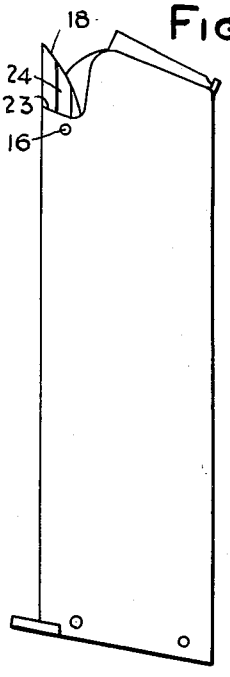


FIG. 5.

FIG. 6.

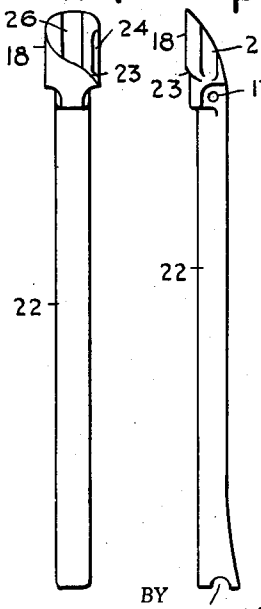
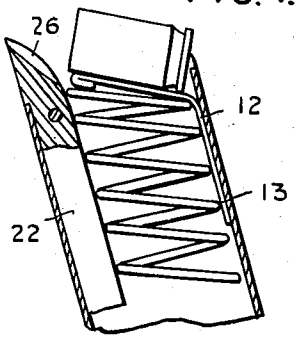


FIG. 7.



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ADAPTOR FOR A MAGAZINE

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Application March 30, 1954, Serial No. 419,665

1 Claim. (Cl. 42—50)

This invention is an improvement in the art of producing firearms, and more particularly, the conversion of firearms originally designed to fire a solid projectile, into firearms designed to fire a shot containing cartridge.

It is an object of this invention to produce a cartridge that is loaded with shot using the standard case that is made to contain a solid projectile.

It is another object of this invention to convert automatic rifles and pistols, originally designed to fire a solid projectile into a gun that will fire shot, particularly automatic firearms having a magazine feed.

Automatic pistols such as the "45 Colt," now a standard weapon for the armed forces can be converted to automatically fire shot containing shells in accordance with this invention by placing the adaptor in the magazine, said adaptor being so constructed that it will guide the shot containing shell into the chamber in the barrel. Without this adaptor the automatic feed magazine will jam before the shell enters the chamber. This is particularly true of the Colt automatic pistol. Broadly, this applies to any rifle or pistol having a magazine in which the cartridge is fed into the chamber by means of a magazine having a spring actuated follower to force the cartridge into the loading position.

This adaptor is also applicable to automatic rifles such as the .30 calibre carbine and the German automatic "G 53" or to any automatic rifle that is fed from a spring actuated magazine.

These magazine fed arms of either the pistol or rifle type may be used to fire a shot containing shell automatically, if the shell can be made to fit in the magazine behind the chamber, using the cartridge case that is designed to hold the solid projectile only if some means is introduced to compensate for the shortened cartridge. The loaded shell is then not as long as it was originally intended and an adaptor must be placed in the magazine to ensure proper feeding in order to maintain automatic operation. This adaptor must do more than compensate in the magazine for the shortened shell. It must also ensure proper automatic feeding of the shell into the chamber.

One embodiment of this invention is shown in the attached drawing, wherein:

Fig. 1 is a sectionalized view of an automatic pistol containing a magazine;

Fig. 2 is an end view of the magazine;

Fig. 3 is a side view of the magazine;

Fig. 4 is a plan view of the magazine;

Fig. 5 is a plan view of the adaptor;

Fig. 6 is a side view of the adaptor;

Fig. 7 is a sectionalized view of the magazine showing the second modification of this invention;

Fig. 8 is a sectionalized view of a shot containing cartridge; and

Fig. 9 is a sectionalized view of a solid projectile containing cartridge.

In loading a shot containing shell a .45 auto-government metal case **30** (Fig. 8) is used. With the standard

case a primer **31** is used to fit this case. The case is then loaded with approximately 5.2 grains of "Bull's-Eye" (Hercules) smokeless powder. This is held in place by a cupped wad **32** slightly compressing the powder. On top of the cupped wad is a metal shim wad about $\frac{6}{1000}$ of an inch thick. On top of that is a compressible lubricating wad, the most desirable being a thin waxed felt wad about $\frac{25}{1000}$ of an inch thick. This is followed by a gripper wad to prevent sticking of the shot to the lubricating wad. A charge **32** of 125 grains of 7½ shot are held in place by means of a top waxed wad.

Referring specifically to Fig. 9 the same case is used as described above with the same primer, the powder charge **33** being placed below the solid projectile **34**.

When it is desired to fire a shot containing cartridge wherein the case is no longer than the solid projectile case, normally used with automatic weapons, it is necessary to place an adaptor within the magazine to compensate for the reduced length of the shell and at the same time to ensure proper feeding of the shortened shell into the chamber. The device used to ensure proper feeding of the shell is the extended end of the adaptor which adaptor **11** is placed in the forward edge of the magazine **10** and compensates as stated above for the shortened shell. The follower **12** is forced upwardly by the spring **13** which extends around the forward edge of the cut back adaptor and is of the same size as is manufactured for the particular weapon being converted by means of the adaptor. This adaptor is held in place by the notch **14** in the bottom thereof, shown in Fig. 6, which fits over the magazine bottom plate bars **15** across the base of the magazine shown in Fig. 1 and is retained at its top by a pin **16** through the magazine which goes through the hole **17** shown in the adaptor in Fig. 6. This adaptor has an extended top **18** shown in Figs. 5 and 6, which extends flush with the outside of the magazine as shown in Fig. 3, so as to force the shell upwardly during the feeding operation, later described, and ensures proper loading of the shell into the chamber **19**. This chamber has a shoulder **20** extending across the top thereof and a bevelled portion **21**. The groove of the face of the part **18** of the adaptor is so arranged as to force the shell upwardly during the loading operation so that it will contact the bevelled portion **21** and enter the chamber **19** properly.

The adaptor having the shank **22** in the upper part **18** has a shoulder **23** which over-rides the edge of the magazine shown in Figs. 2 and 3. This shoulder allows the adaptor to come flush and continues the straight forward edge of the magazine upwardly. The part **18** of the adaptor also has a rear face which contacts the shell during the loading operation. It must have a cut-away part **24** on the side thereof to allow the slide stop to clear the adaptor.

A second form of adaptor is shown in Fig. 7 wherein the follower **12** is forced upwardly by means of the spring **13**, which spring is narrower than the spring originally manufactured for the magazine and does not surround the adaptor shank **22** but rests against the rear edge thereof and forces the follower and shell upwardly in the magazine. This adaptor is held in place in the magazine in the same manner as is that shown in the first form.

In operation the magazine is equipped with an adaptor and the shortened cartridge containing shot is placed in the magazine, one at a time forcing the follower **12** downwardly and compressing the spring **13** until the magazine is completely filled. This is then forced into the receiver and held in position by the catch **25** shown in Fig. 1. The slide **26** is retracted against the recoil spring **29** and when released the recoil spring forces the slide forward into a closed position. As the slide starts to close the lower edge of the breech block contacts the upper edge

of the rear of the cartridge. The groove on the side of the case contacts the extractor. The forward edge of the case is guided by the face of the adaptor, referred to above, so that it comes into contact with the bevelled lower edge **21** of the chamber and is guided into the chamber when the slide is moving to the forward position. The piston is then ready for firing. On firing, the usual automatic operation is performed as described above.

The gas generated in the cartridge fired in the pistol is utilized to perform the function of extracting and ejecting the empty cartridge case, cocking the hammer and forcing the slide to the rearward position, thereby compressing the recoil spring. The action of the recoil spring forces the slide forward, feeding a live cartridge from the magazine into the chamber, leaving the weapon ready for firing again.

The top face of the adaptor is bevelled to give a ramp along which the case slides during the loading operation to prevent the case from tilting outwardly or sideways which would produce a jam. This ramp is an essential feature of this invention. The face of this ramp has a groove cut in it that helps guide the shell into the chamber. This groove is desirable, but is not a necessary feature, as the face of the ramp shown in Fig. 3 does not have said groove. This groove **26** is shown on the face of the adaptor in Figure 7.

In the second modification shown in Fig. 7, the forward edge of the shank **22** comes into contact with the inside of the plate forming the magazine, and it is desirable to cut a small groove **27** therein to take the retaining latch **25**, which holds the magazine in place in the piston against the compression of the magazine spring operating through the top cartridge.

It has often been found desirable to fire shot from an automatic weapon instead of the solid projectile designed to operate in the weapon and it is also desirable when using the weapon in this manner to use a standard cartridge case designed to hold the solid projectile. This allows the use of the weapon to kill small animals, which is of the utmost importance in the survival of armed personnel in hostile and uninhabited territory. It is also desirable in the training of personnel in handling automatic weapons to use a shell containing shot so that the usual clay targets may be used to bring the personnel into greater familiarity with the weapon and to teach rapid swinging and aiming of the weapon, which is impossible with a stationary target, now commonly used. This adaptor allows the use of each individual's own weapon, using a magazine containing the adaptor in the gun when automatically firing a shot containing shell in such a manner that he can readily acquire a high degree of skill in handling his weapon. Heretofore adaptors have been placed in a repeating weapon to compensate for shorter loads but the automatic loading feature found in the adaptor described above has not been heretofore used. This adaptor is the first to present a simple device that may be added to a standard weapon to allow its conversion so that shorter cartridges may be fired therefrom.

What is claimed is:

An adaptor to fit in the forward edge of a magazine of an automatic firearm, said magazine comprising a spring and follower and said firearm comprising a bolt and chamber, the adaptor comprising a shank portion and a ramp portion, said shank portion extending the length of the magazine and lying entirely within the spring and in front of the follower, the bottom end of the shank having a notch fitting over a plate bar in the bottom of the magazine, the top end of the shank being held in place by means of a pin through the magazine walls; the ramp, an extension of the shank, overlying the edge of the magazine and terminating below the bolt and having an inclined concave surface leading to the chamber.

References Cited in the file of this patent

UNITED STATES PATENTS

875,762	Winans et al.	Jan. 7, 1908
1,401,152	Green	Dec. 27, 1921
1,407,633	Burton	Feb. 21, 1922
2,144,232	Spengler	Jan. 17, 1939
2,296,729	Mossberg	Sept. 22, 1942
2,507,364	Benson	May 9, 1950

FOREIGN PATENTS

634,724	Germany	Sept. 2, 1936