

FIG. 1

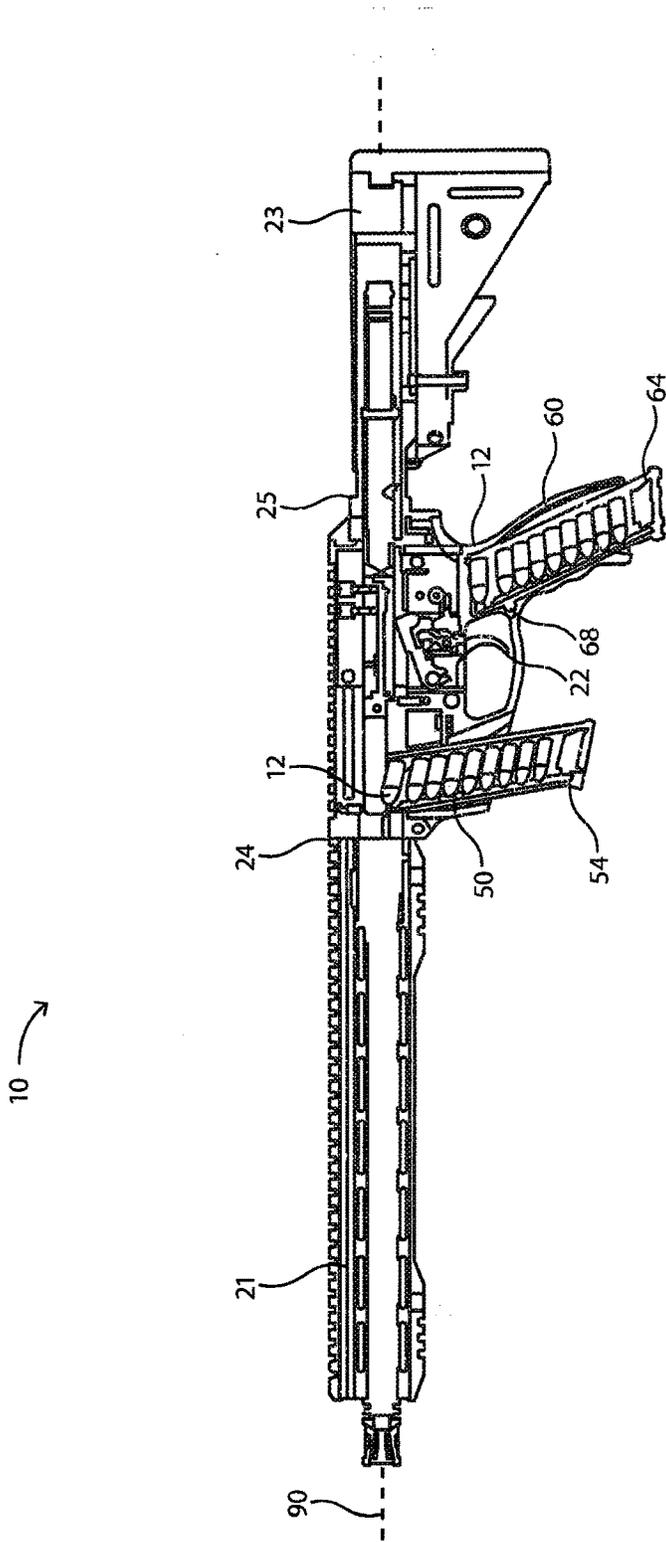


FIG. 2

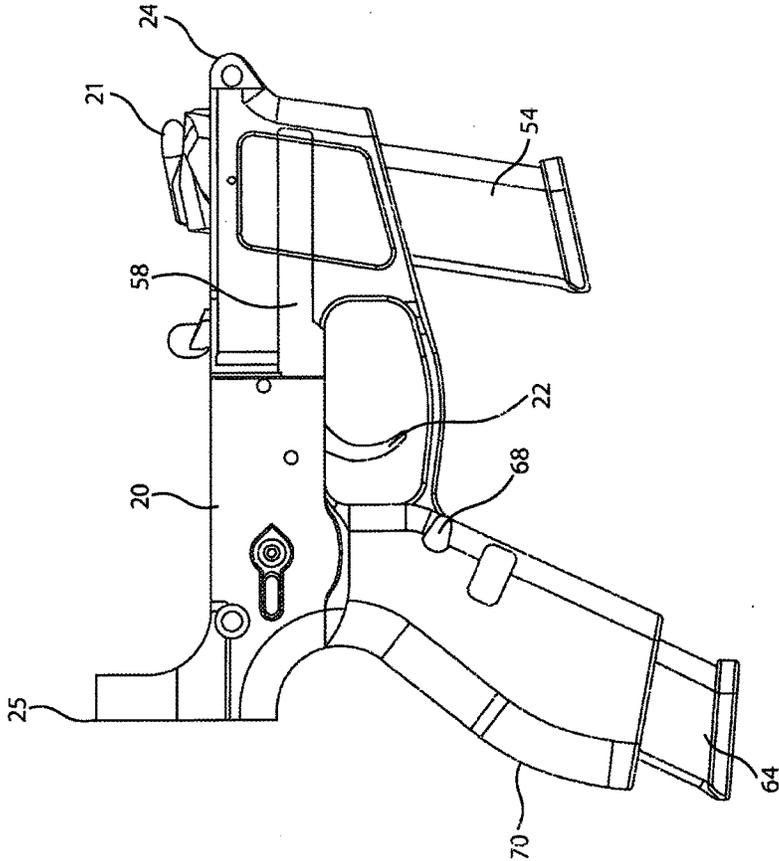


FIG. 3

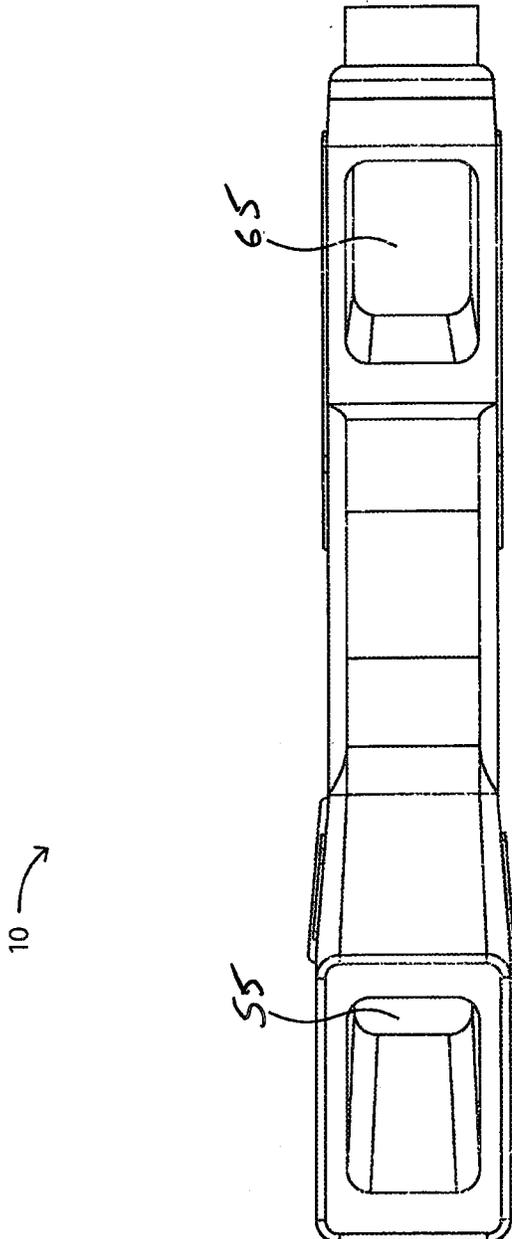


FIG. 5

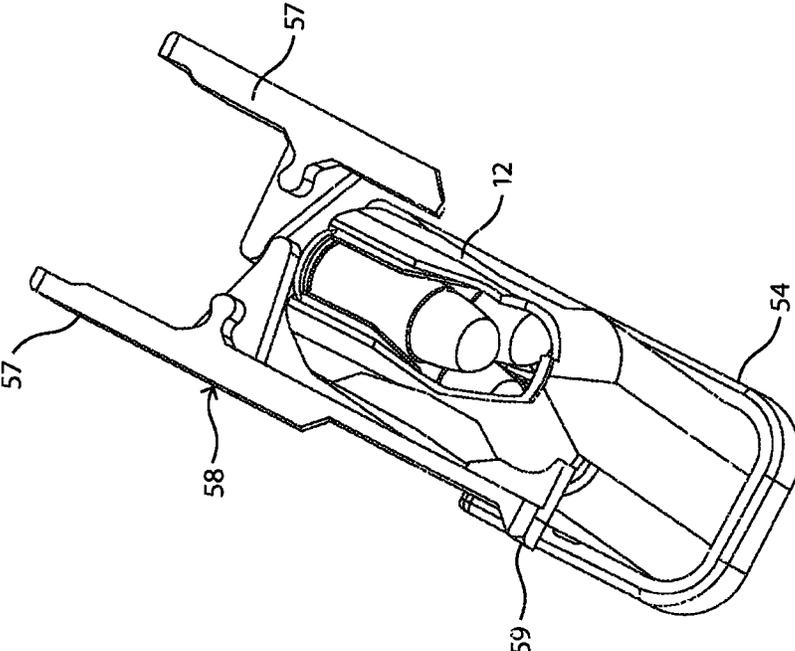


FIG. 6

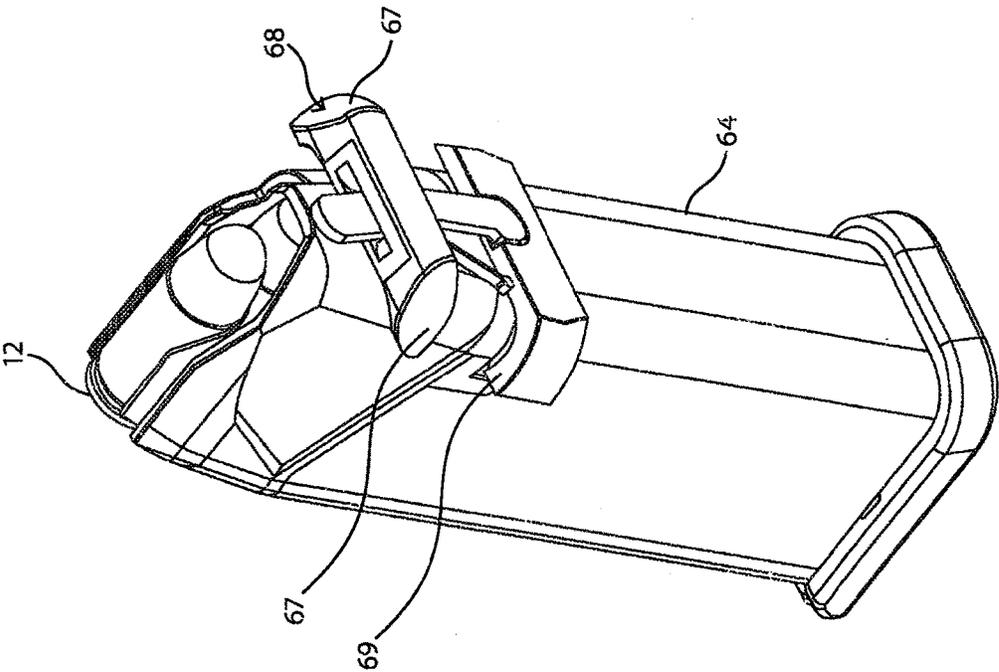


FIG. 7

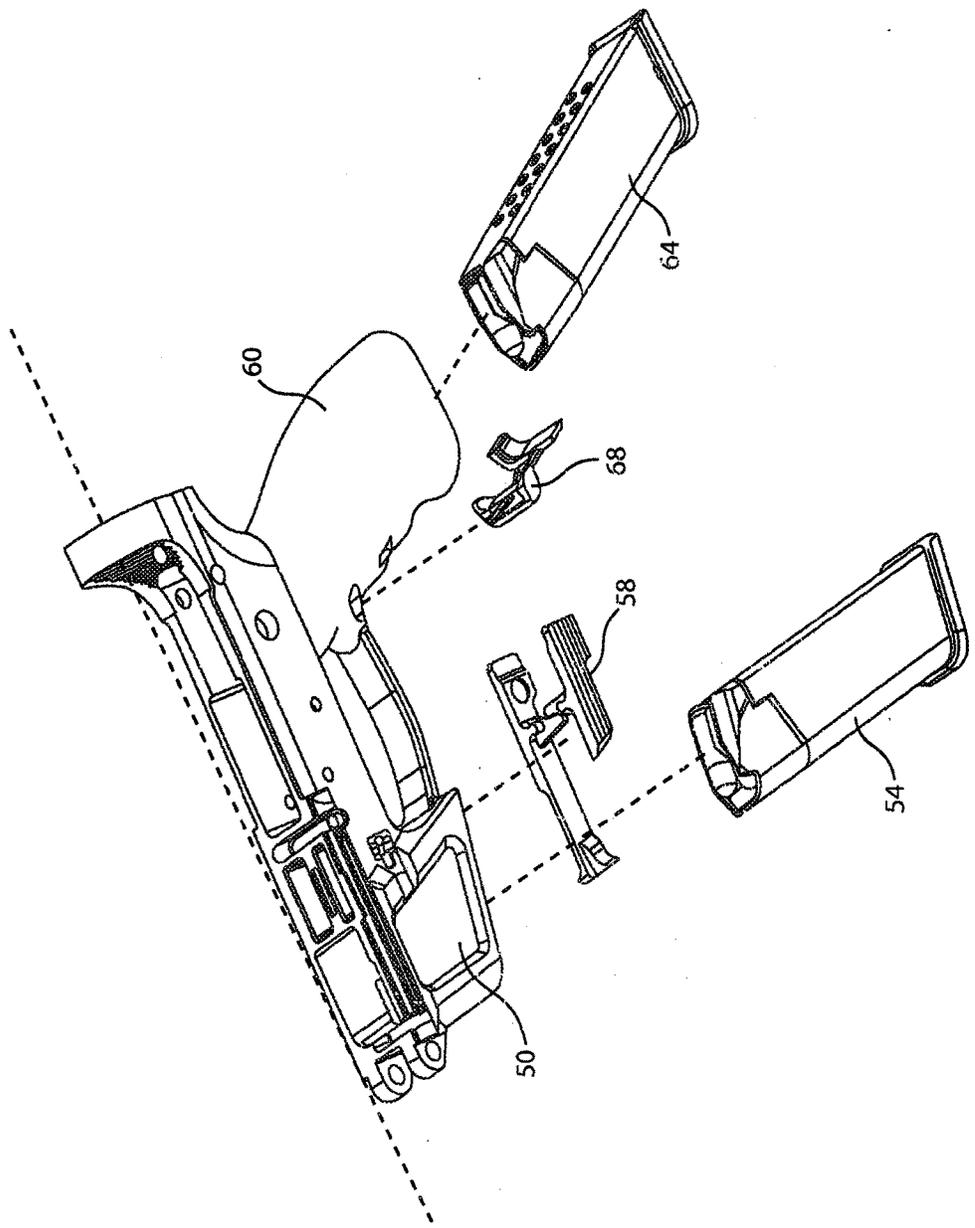


FIG. 8

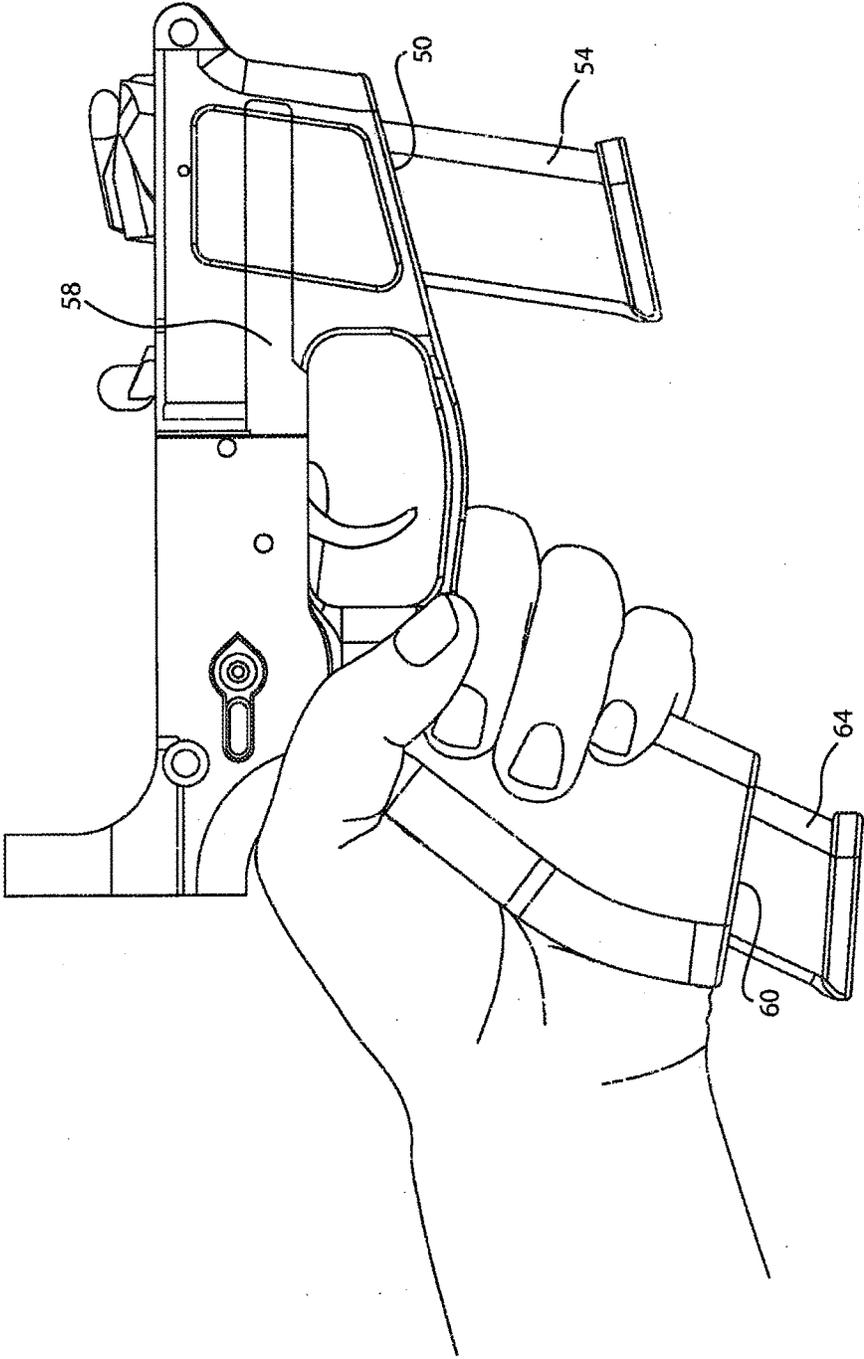


FIG. 9

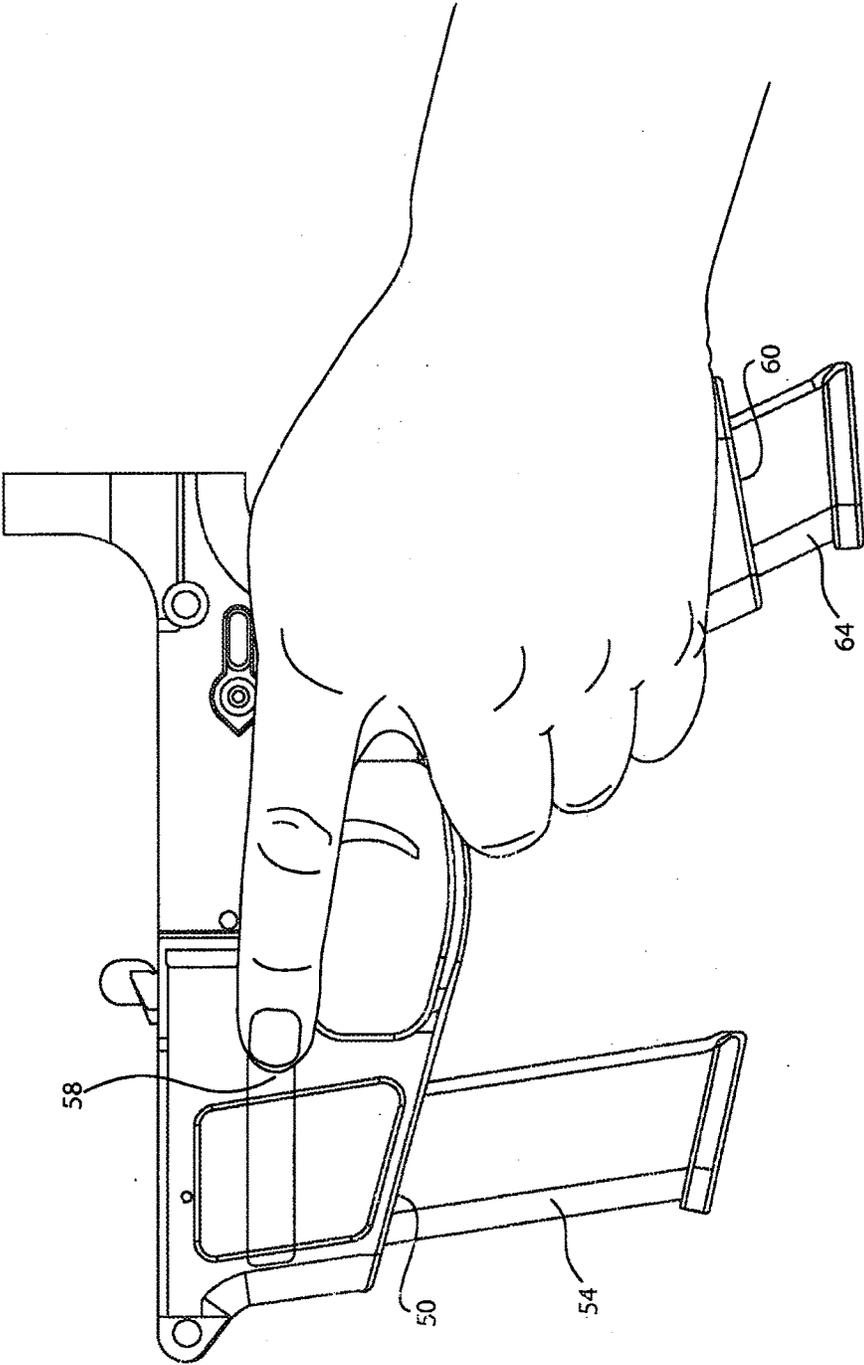


FIG. 10

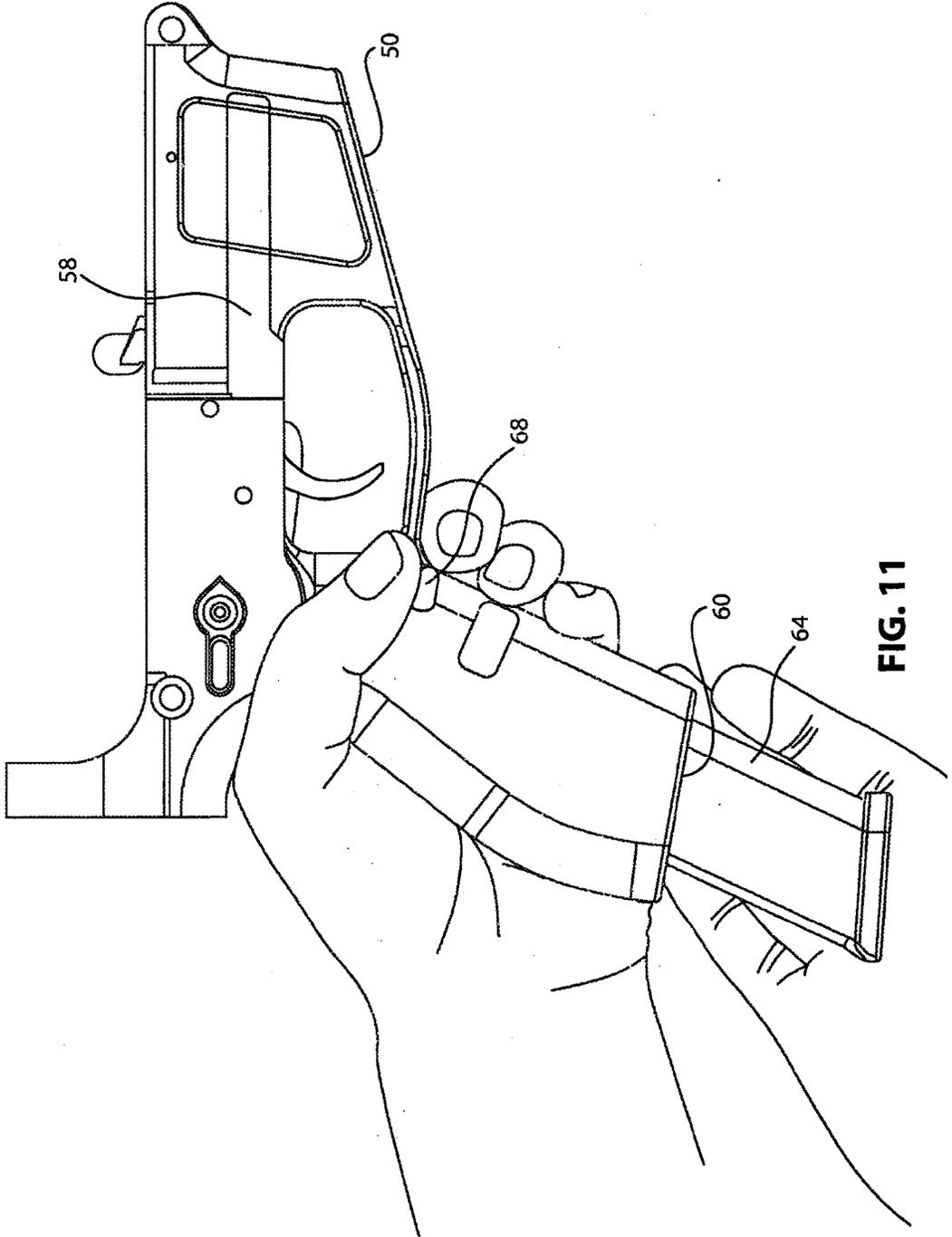


FIG. 11

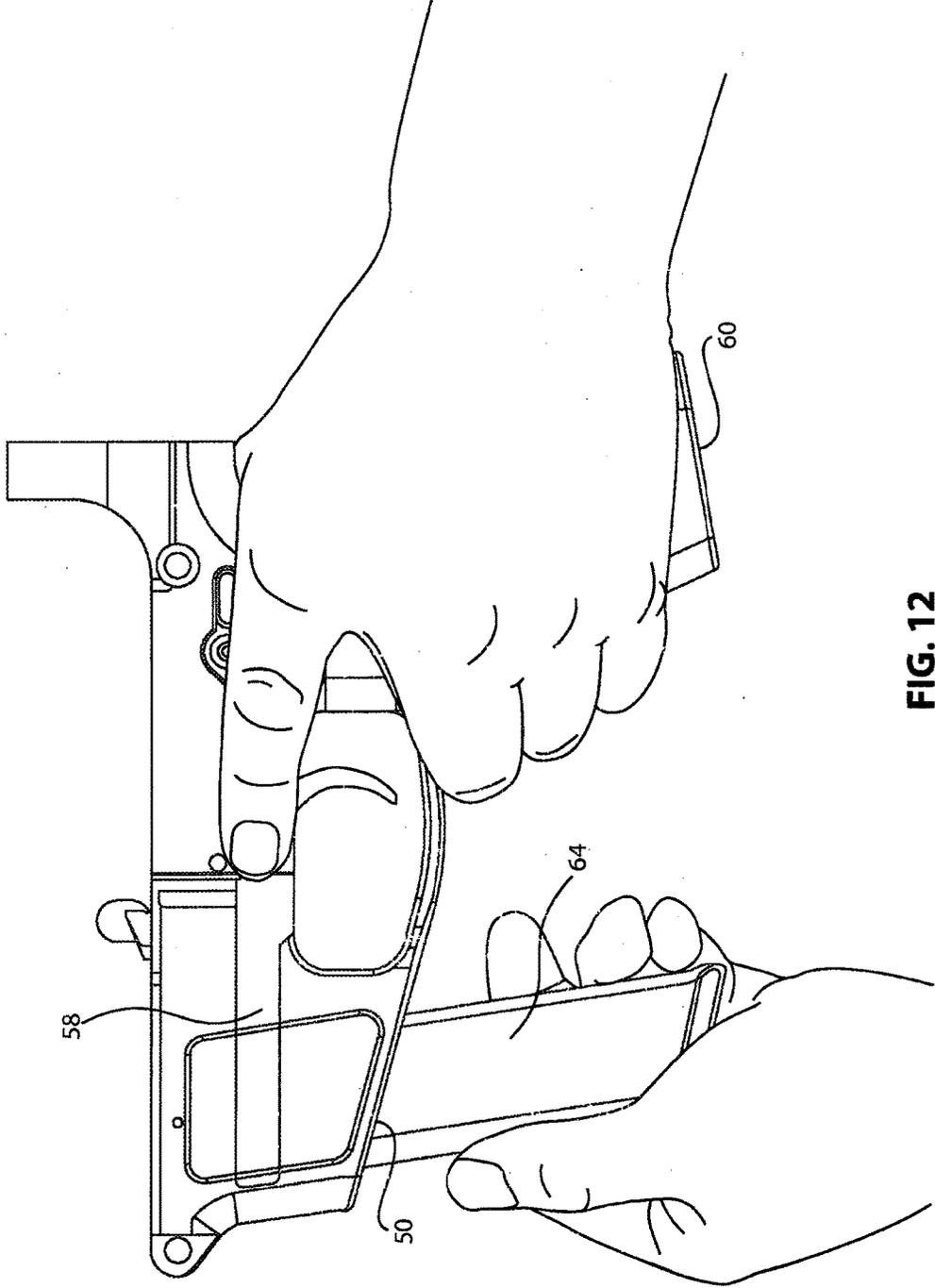


FIG. 12

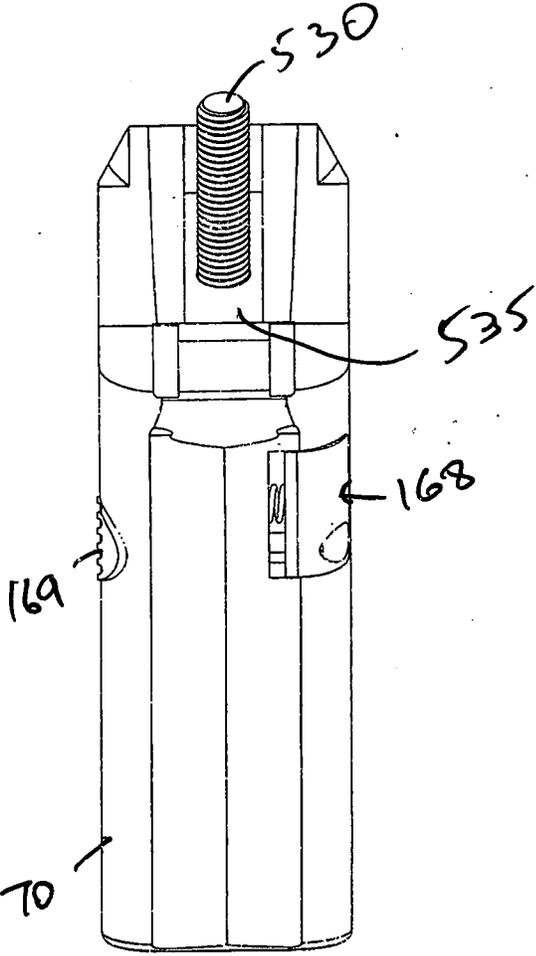


Figure 13

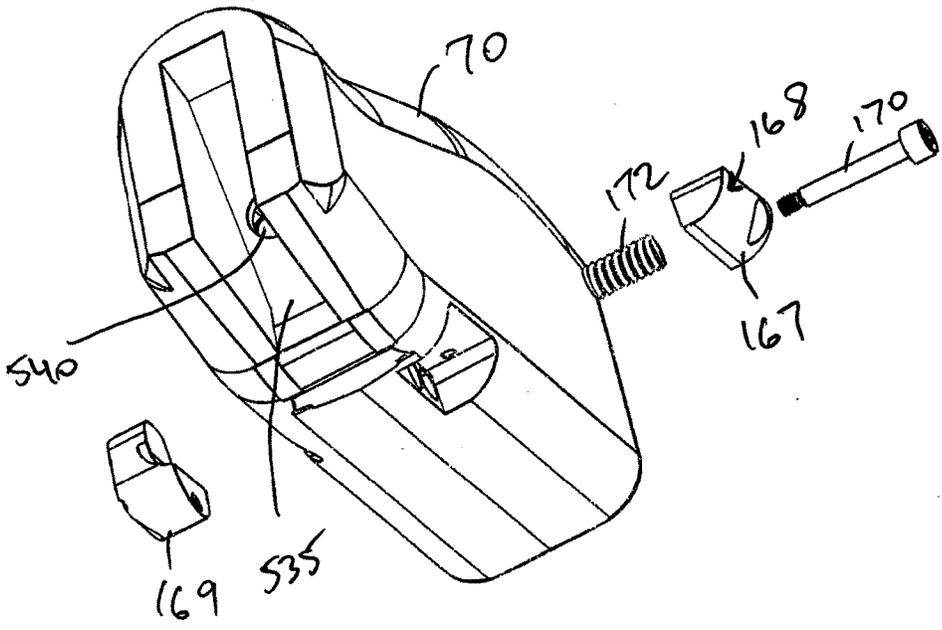


Figure 14a

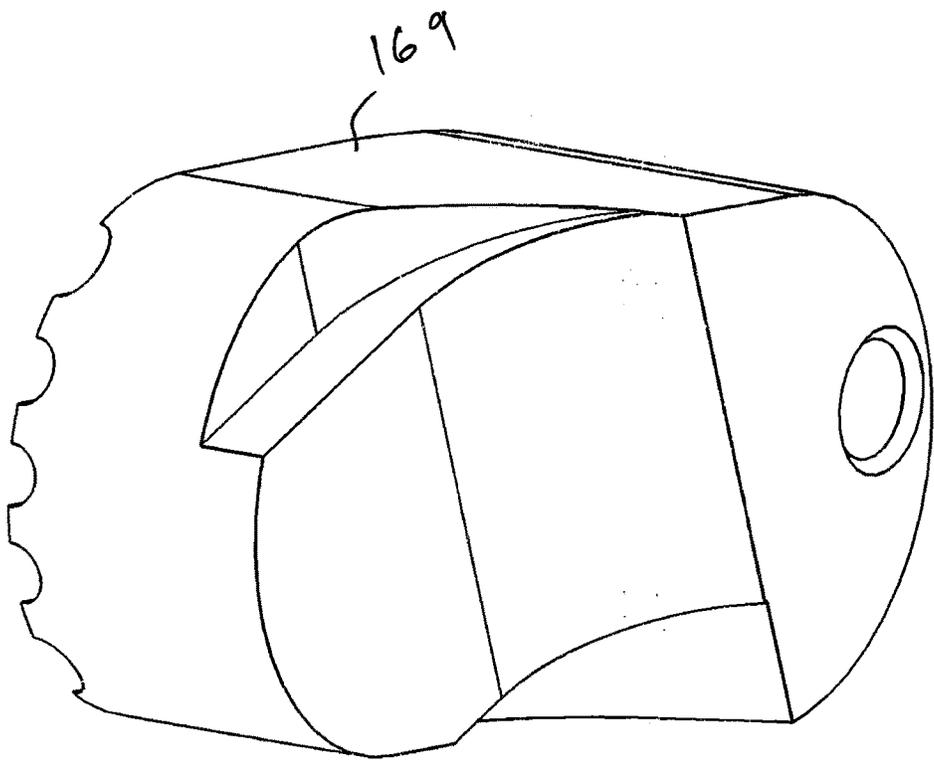
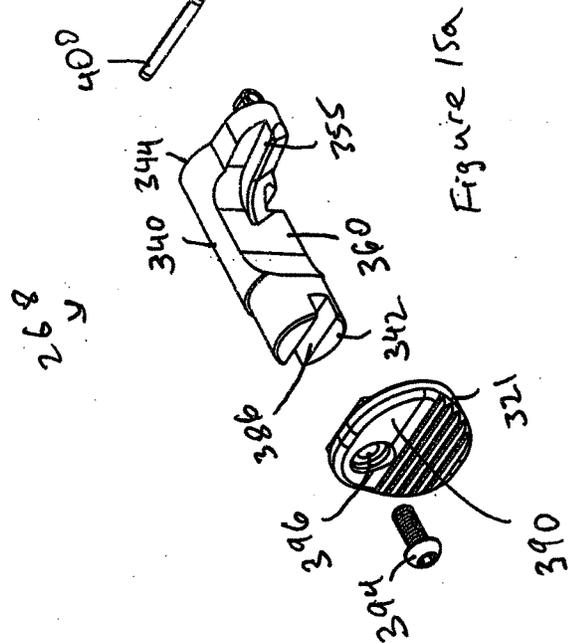
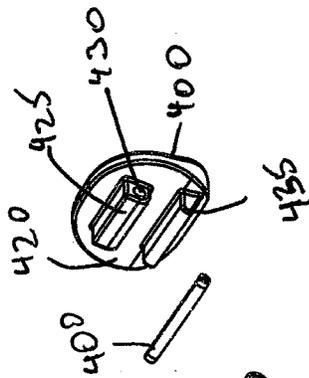
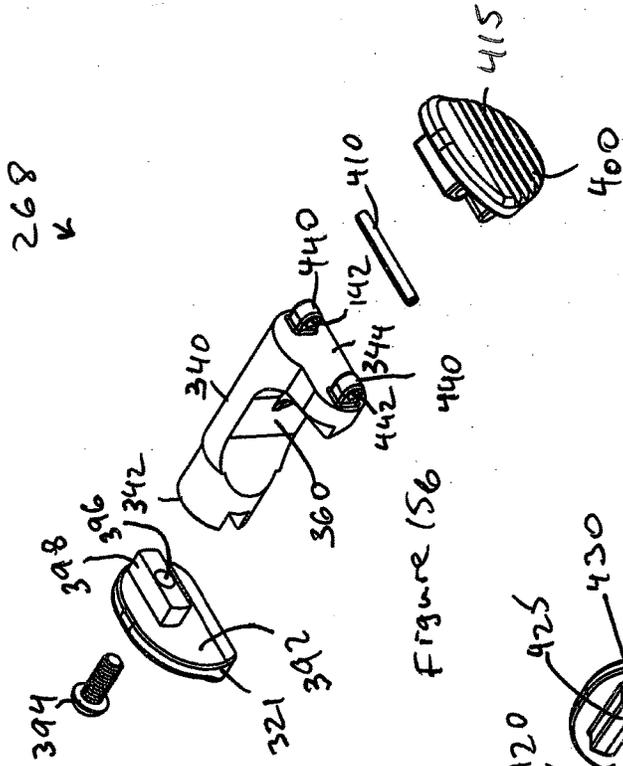
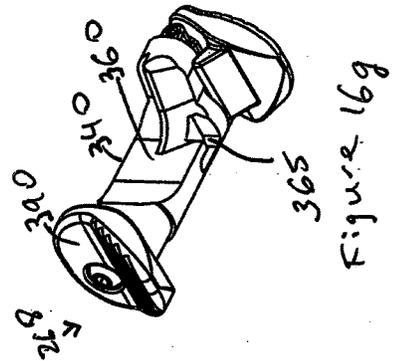
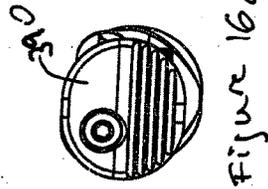
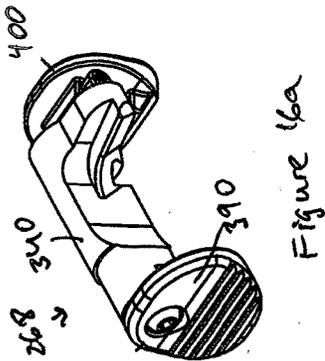
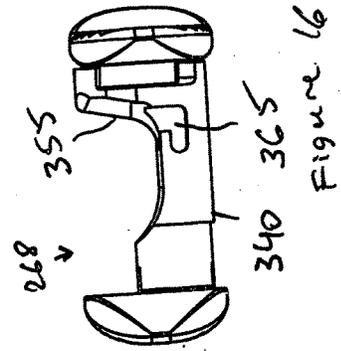
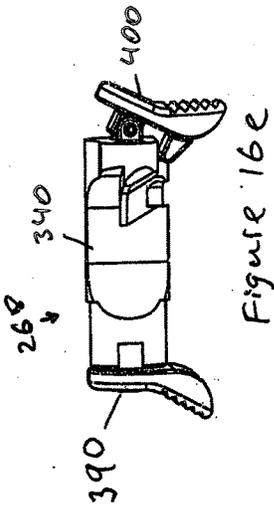
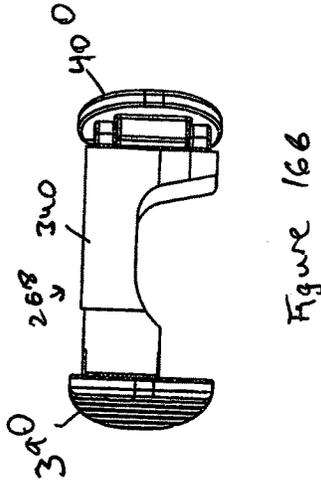
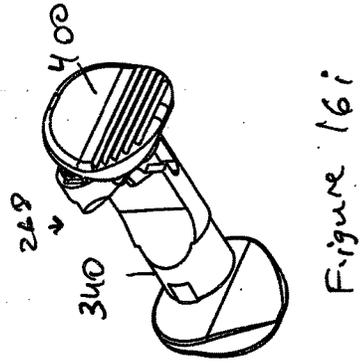
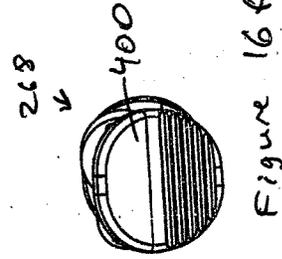
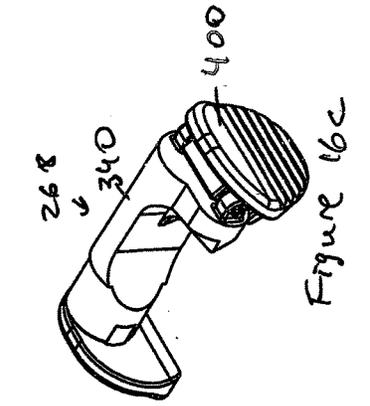


Figure 14b





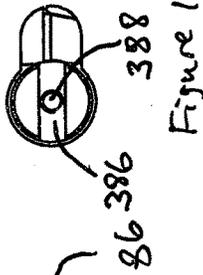
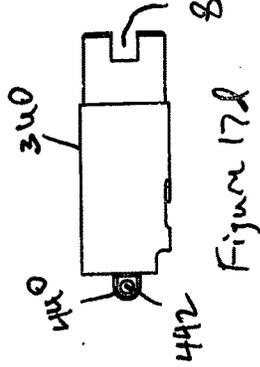
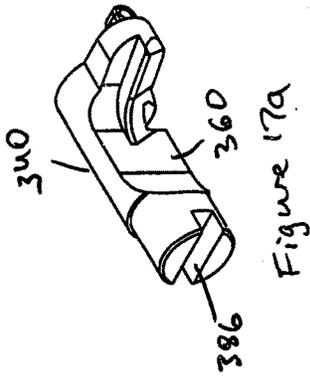


Figure 17d

Figure 17e

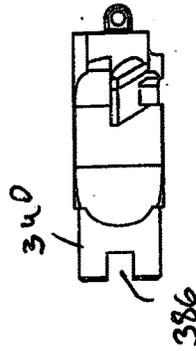
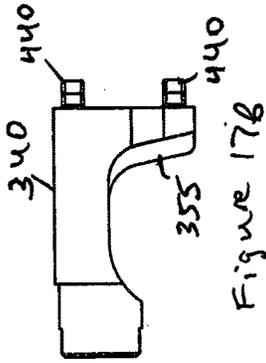


Figure 17f

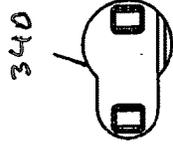


Figure 17g

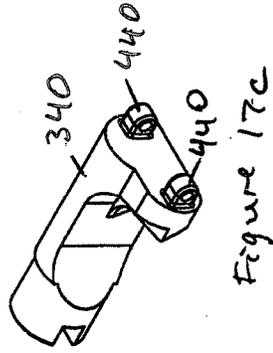


Figure 17c

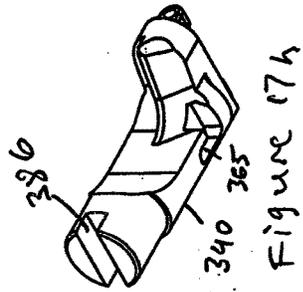


Figure 17h

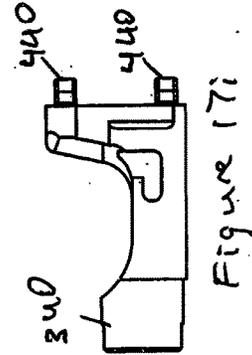


Figure 17i

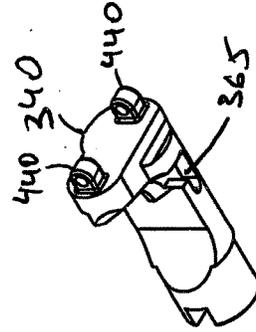


Figure 17j

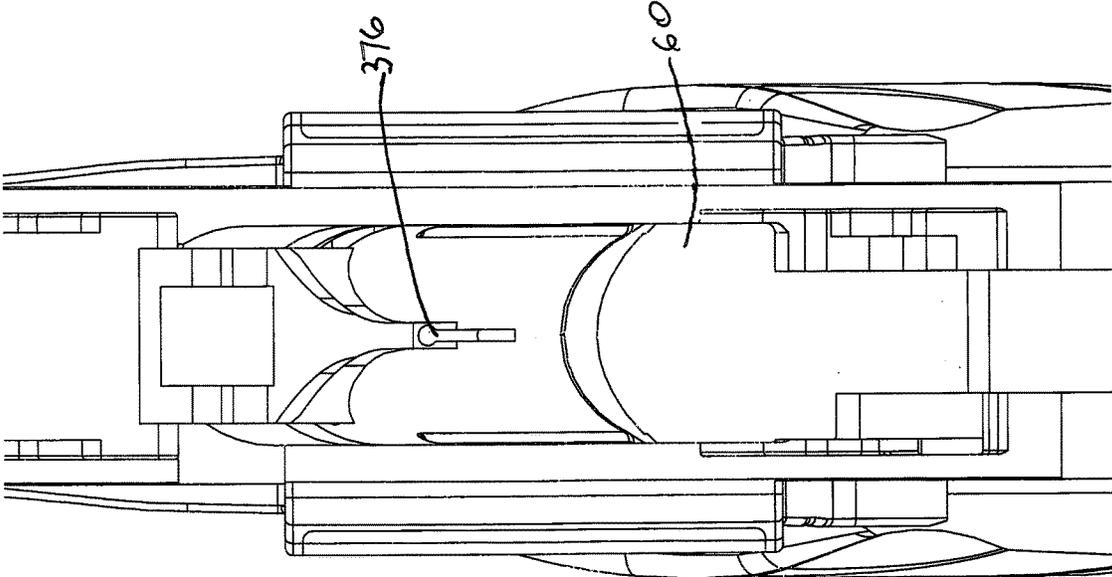


Figure 18

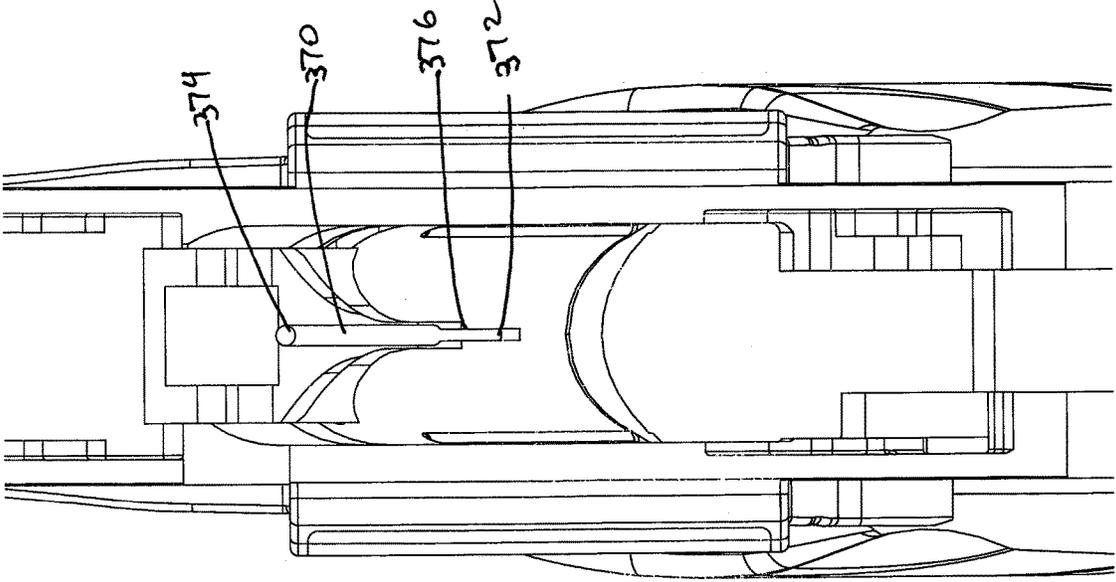


Figure 19

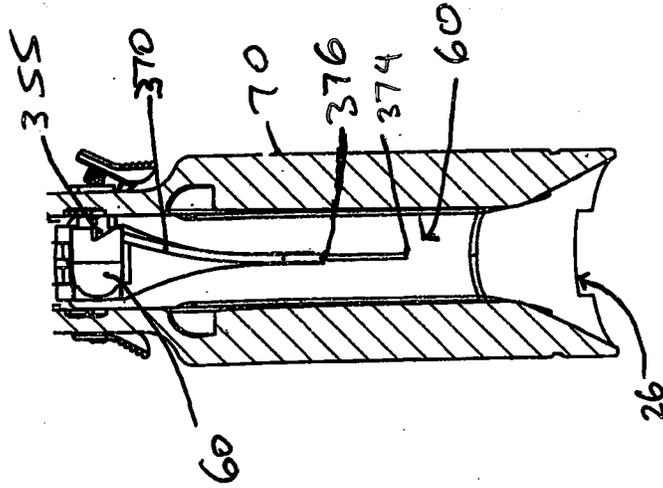


Figure 21

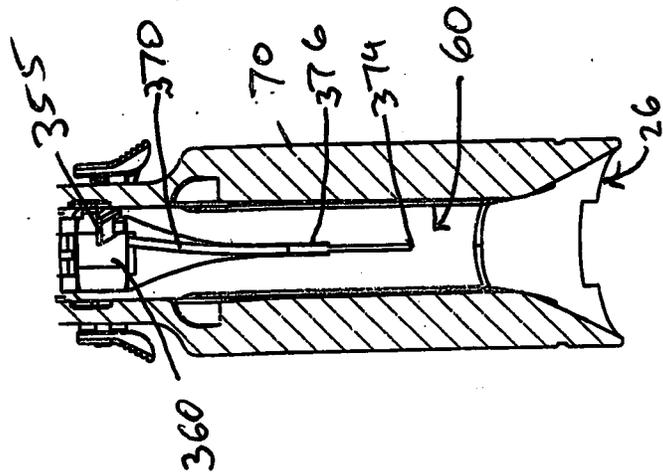


Figure 20

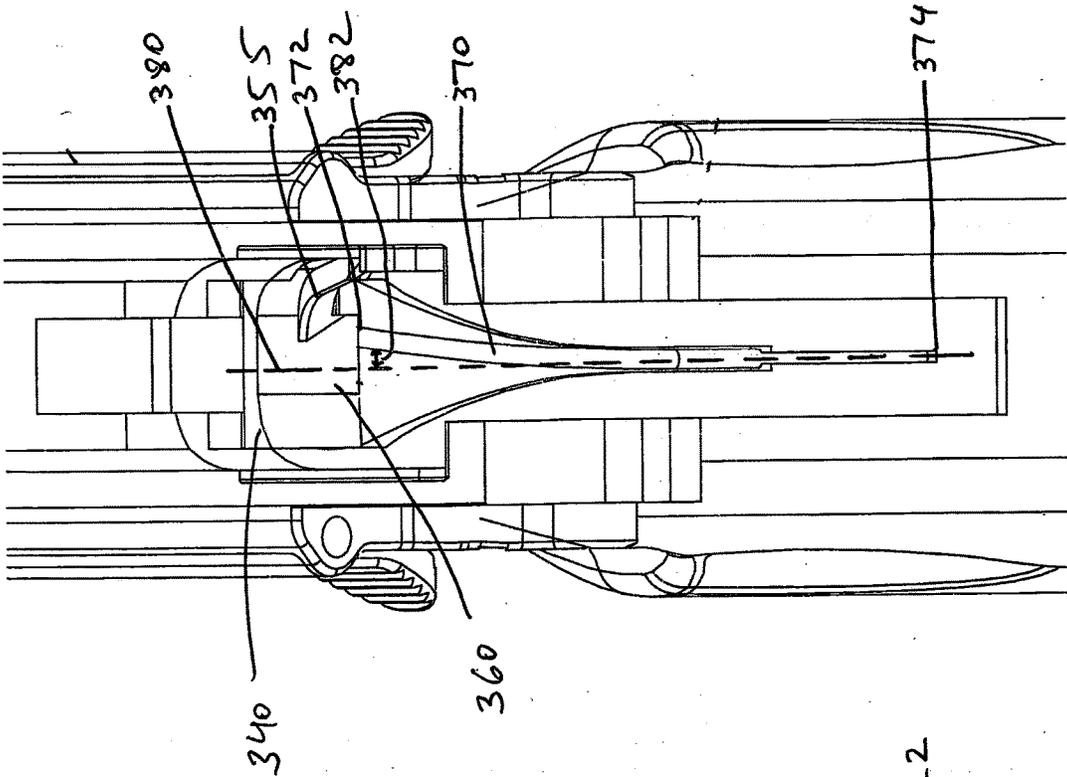


Figure 22

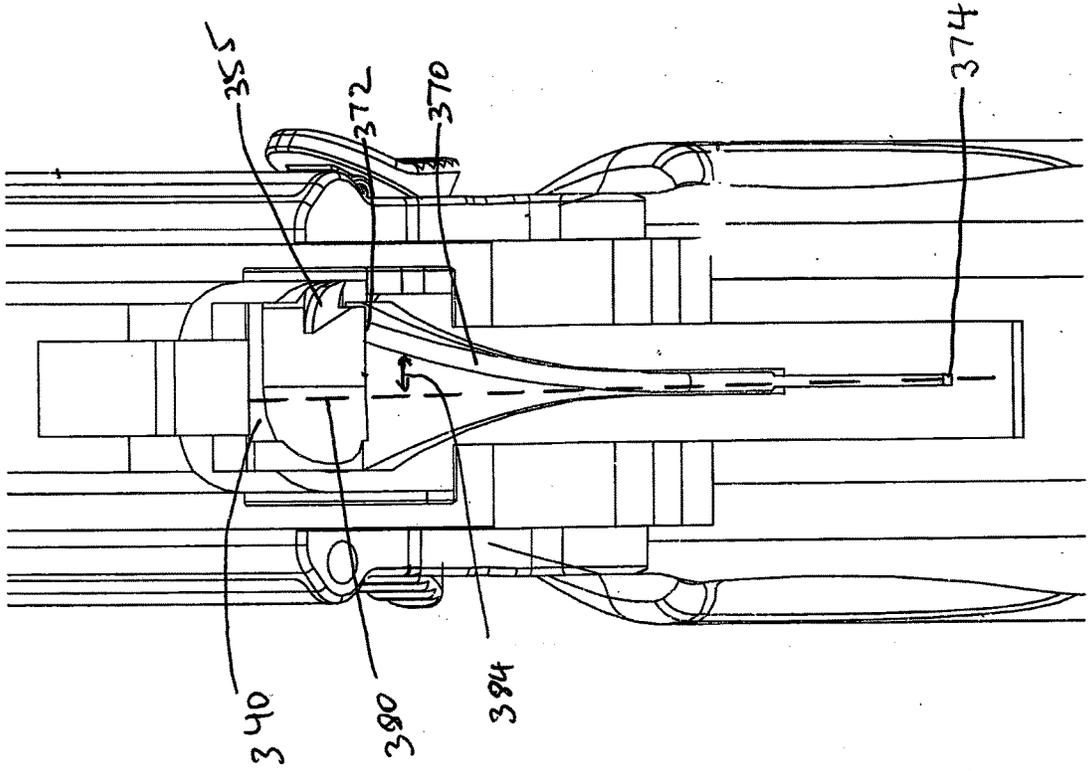


Figure 23

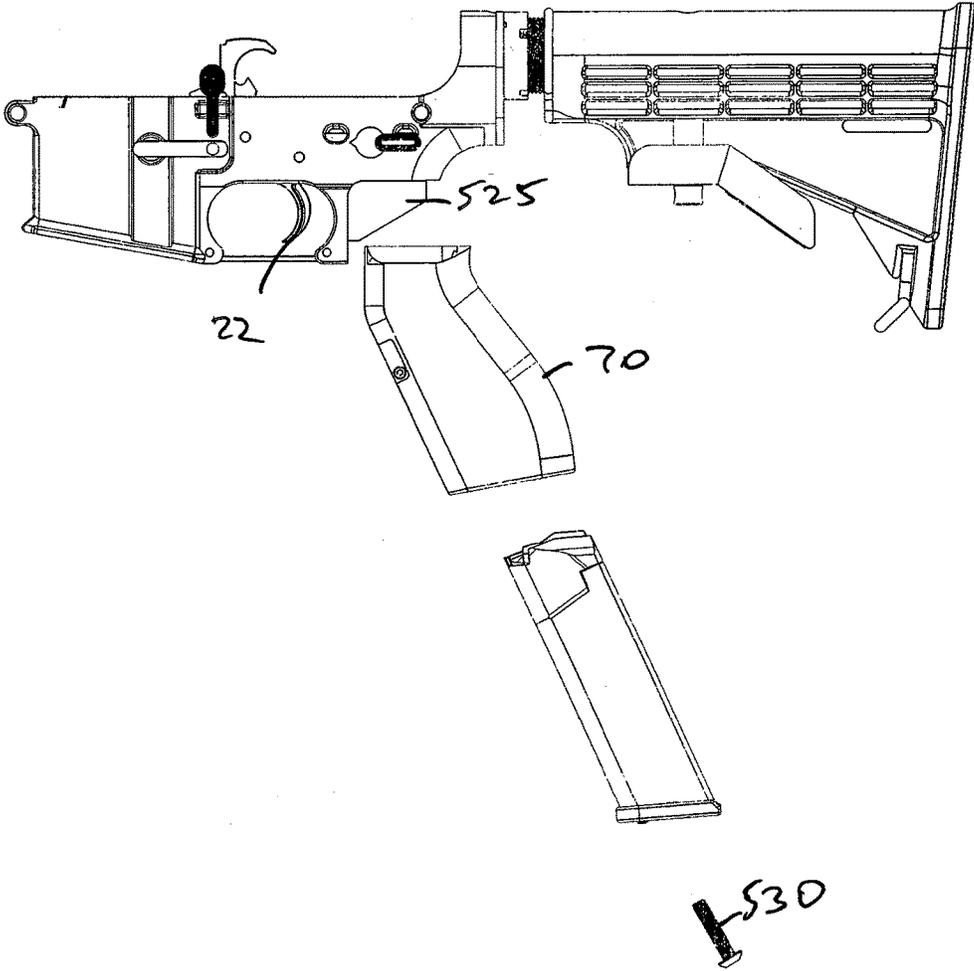


Figure 24

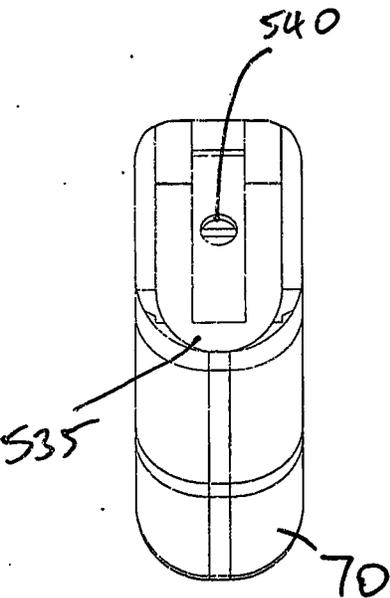


Figure 25

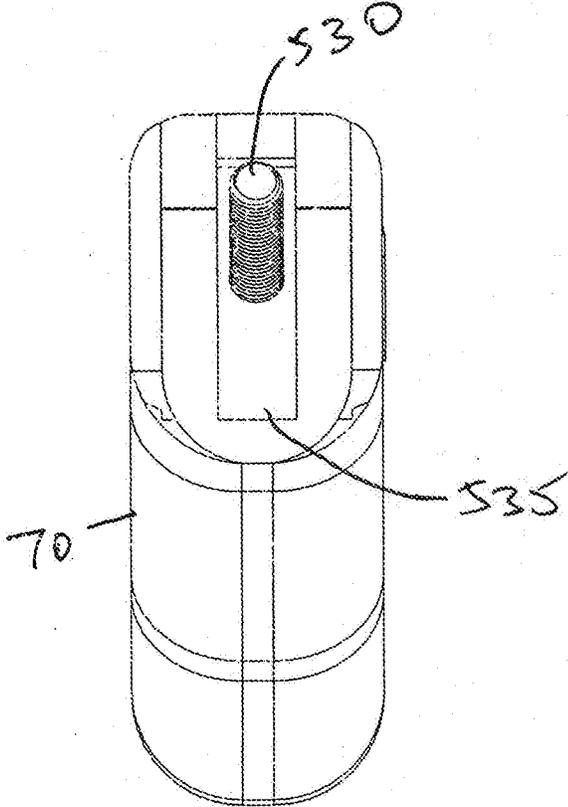


Figure 26a

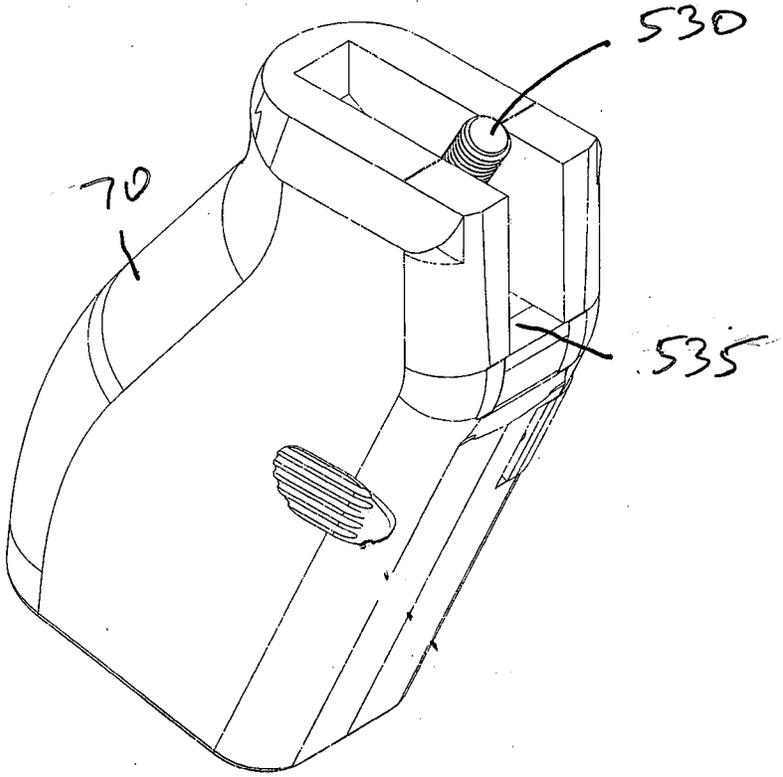


Figure 26 b

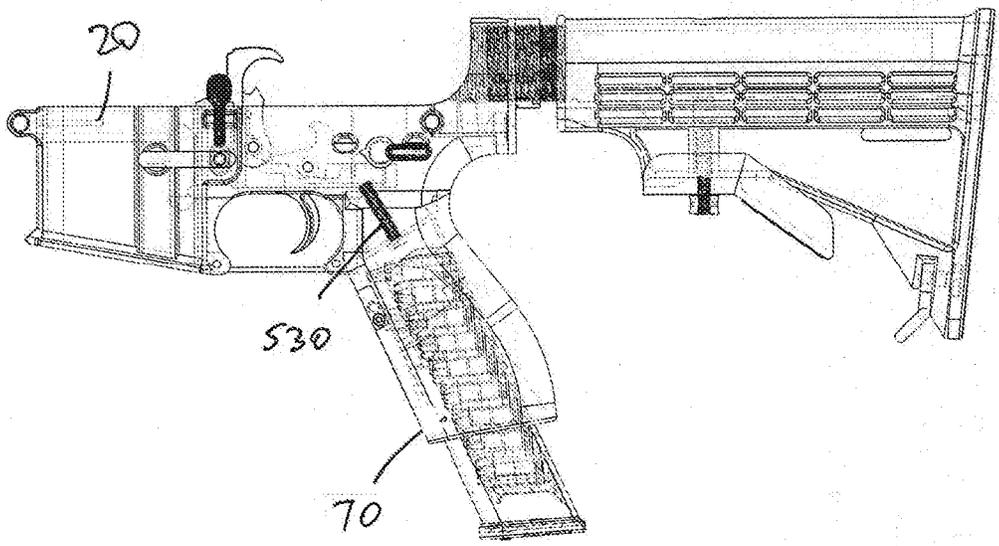


Figure 27

DETACHABLE PISTOL GRIP FOR A FIREARM

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No. 62/448,340, filed on Jan. 19, 2017, which is incorporated herein by reference in its entirety. This application claims the benefit of U.S. application Ser. No. 15/421,952, filed on Feb. 1, 2017, which is incorporated herein by reference in its entirety.

FIELD

[0002] The present invention relates to firearms. More particularly, the present invention relates to a detachable pistol grip for a firearm.

BACKGROUND

[0003] It is often desirable to carry additional magazines for a firearm to provide for more rounds of shooting capacity. Options include belts and holsters to carry the additional magazines. Other options include a second magazine attached to the first, and spare magazines stored in a rifle buttstock. However, these options can be cumbersome and can slow a user in reloading their firearm with a new magazine.

[0004] There needs to be a better way of carrying a spare magazine.

BRIEF DESCRIPTION OF THE FIGURES

[0005] The same reference numerals refer to the same parts throughout the various figures.

[0006] FIG. 1 is a side view of a firearm according to some embodiments of the present disclosure.

[0007] FIG. 2 is a cross-sectional side view of the firearm of FIG. 1.

[0008] FIG. 3 is a side view of the frame of the firearm of FIG. 1.

[0009] FIG. 4 is a cross-sectional side view of the frame of FIG. 3.

[0010] FIG. 5 is a bottom view of the frame of FIG. 3, excluding the magazines.

[0011] FIG. 6 is a perspective view of an operational magazine and an operational magazine release according to some embodiment of the present disclosure,

[0012] FIG. 7 is a perspective view of a secondary magazine and a secondary magazine release according to some embodiment of the present disclosure.

[0013] FIG. 8 is an exploded perspective view of particular components of a firearm frame according to some embodiment of the present disclosure.

[0014] FIG. 9 is a side view of a firearm according to an embodiment of the present disclosure being gripped by a user in the firing position.

[0015] FIG. 10 is a side view of the firearm of FIG. 9 with a user releasing the operational magazine.

[0016] FIG. 11 is a side view of the firearm of FIG. 10 with a user releasing the secondary magazine.

[0017] FIG. 12 is a side view of the firearm of FIG. 11 with a user loading the secondary magazine into the operational magazine well.

[0018] FIG. 13 is a front view of the grip according to some embodiments presently disclosed.

[0019] FIG. 14a is an exploded view of the grip according to some embodiments presently disclosed.

[0020] FIG. 14b is a latch according to some embodiments presently disclosed.

[0021] FIGS. 15a-b are exploded views of a secondary magazine release according to some embodiments presently disclosed.

[0022] FIGS. 16a-i are views of the secondary magazine release of FIGS. 15a-b.

[0023] FIGS. 17a-j are views of a retaining pin according to some embodiments presently disclosed.

[0024] FIGS. 18-23 are cross-sectional side views of the grip according to some embodiments presently disclosed.

[0025] FIG. 24 is an exploded view of a firearm according to some embodiments presently disclosed.

[0026] FIGS. 25, 26a-b are views of a grip according to some embodiments presently disclosed.

[0027] FIG. 27 is a cross-sectional side view of a firearm according to some embodiments presently disclosed.

[0028] In the following description, like reference numbers are used to identify like elements. Furthermore, the drawings are intended to illustrate major features of exemplary embodiments in a diagrammatic manner. The drawings are not intended to depict every feature of every implementation nor relative dimensions of the depicted elements, and are not drawn to scale.

DETAILED DESCRIPTION

[0029] In the following description, numerous specific details are set forth to clearly describe various specific embodiments disclosed herein. One skilled in the art, however, will understand that the presently claimed invention may be practiced without all of the specific details discussed below. In other instances, well known features have not been described so as not to obscure the invention.

[0030] Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The use of “including,” “comprising,” or “having” and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. Unless limited otherwise, the terms “connected,” “coupled,” and “mounted,” and variations thereof herein are used broadly and encompass direct and indirect connections, couplings, and mountings. In addition, the terms “connected” and “coupled” and variations thereof are not restricted to physical or mechanical connections or couplings.

[0031] Referring now to FIGS. 1-4, there is shown a firearm 10 according to some of the embodiment of the present disclosure. FIGS. 1-2 illustrate a complete firearm that includes a frame 20, a barrel 21, and a butt 23, while FIGS. 3-4 illustrate the frame of the firearm in greater detail.

[0032] The frame 20 can have a forward end 24 and a rear end 25 opposite the forward end 24. The frame 20 can include an operational magazine well 50 and a secondary magazine well 60. The magazine wells 50, 60 can be adapted to receive and hold a magazine in each magazine well.

[0033] The operational magazine well 50 can be operational, while the secondary magazine well 60 can be non-operational. For example, the operational magazine well 50 can have an upper end 52 that is open, allowing a projectile 12 in the operational magazine 54 to be transferred to a firing assembly and fired from the firearm 10. Put another way, the operational magazine can be in communication with a

passage within the firearm in which a bolt reciprocates to feed cartridges from the magazine into a well at the breech end of the barrel 21. In contrast, the secondary magazine well 60 can have an upper end 62 that is closed, such that a projectile 12 in the secondary magazine 64 cannot be transferred to a firing assembly and the barrel 21 within the frame 20.

[0034] The fact that the upper end of the well 60 may be closed is not necessary to get the operational benefits of the invention, but it does provide a secondary benefit of avoiding a potential entry point for debris or other contamination that may occur in some firearms. For instance, gas-operated firearms are said to “exhaust where they feed” and the soot from the exhaust gas can coat surfaces that are in communication with the bolt passage. While this is not generally a problem for a primary magazine in a gas-operated semiautomatic rifle because the cartridges are consumed as they might be dirtied, a spare magazine and its top exposed cartridge might remain in place for not just many shots, but many magazines. Thus, protecting a reserve magazine from such potential contamination helps to ensure that the exposed top rounds are clean and readily feedable when needed.

[0035] The frame 20 can further include a trigger 22 operable to initiate firing of a projectile 12 from the firearm 10. The trigger 22 can be disposed between the operational magazine well 50 and the secondary magazine well 60. For example, the operational magazine well 50 can be disposed forward of the trigger 22 and closer to the forward end 24 of the frame 20 than the secondary magazine well 60. The secondary magazine well 60 can be disposed behind the trigger 22 and closer to the rear end 25 of the frame 20 than the operational magazine well 50.

[0036] According to some embodiments presently disclosed, the secondary magazine well 60 can be disposed within the grip 70.

[0037] The operational magazine well 50 and the secondary magazine well 60 can have different lengths between their respective upper ends 52, 62 and a bore axis 90 of the barrel 21. In particular embodiments, the upper end 52 of the operational magazine well 50 can be closer to the bore axis 90 of the barrel 21 than the upper end 62 of the secondary magazine well 60.

[0038] The operational magazine well 50 can also be at a different general major angle than the secondary magazine well 60. As particularly illustrated in FIG. 4, the operational magazine well 50 can have a general major angle α with respect to the barrel bore axis 90 that is greater than a general major angle β of the secondary magazine well 60 with respect to the barrel bore axis 90. The general major angle is measured at the intersection of the magazine center line 91, 92 as measured between the centerpoint 93 from the an inner cross-sectional profile at a lower end 53, 63 and the centerpoint 95 from an inner cross-sectional profile at the upper end 52, 62 to the bore axis 90 of the barrel 21.

[0039] Referring now to FIG. 5, which illustrates a bottom view of the frame excluding the magazines, an inner cross-sectional profile 55 of the operational magazine well 50 can be complementary to an inner cross-sectional profile 65 of the secondary magazine well 60, such that a magazine that is being stored in the secondary magazine well 60 can be released and inserted into the operational magazine well 50. This means that a magazine fits in both wells in the same way in essentially all respects. The fit is equally close, but

also readily enabling the magazine to be inserted and extracted without undue force. In some instances the magazine is desired to “drop-free” under its own weight even when empty when a latch is released. There may be some differences that do not affect the functional interface between magazine and well, such as extra voids between a flat magazine side panel and a curved grip wall, in order to provide consistent wall thicknesses, moldability, machinability, material conservation, or weight reduction.

[0040] The secondary magazine well 60 can have a longer height H_s than the height H_o of the operational magazine well 50. For example, a larger portion of the magazine length can be outside of the magazine well when that magazine is in the operational magazine well versus the secondary magazine well. The height of a magazine well is measured as the distance between the upper end 52, 62 and the lower end 53, 63 of the magazine well. Also, some firearm platforms provide magazines of different lengths and capacities that are compatible with the same firearm, including short magazines for compact pistols, with long magazines being accepted by those pistols, and extended capacity magazines holding 30 rounds also being useable while protruding greatly from a pistol, all with the same upper portion and release latch features at the same locations with respect to the upper end. The wells of the illustrated embodiment may accommodate any of a wide range of compatible magazines and enable different strategies for loading, including larger or smaller magazines in either location, depending where protrusions are more acceptable or disadvantageous.

[0041] According to some embodiments presently disclosed, the firearm 10 can have an operational magazine release 58 operable to release an operational magazine 54 from the operational magazine well 50. The operational magazine release 58 can be disposed closer to the forward end 24 of the frame 20 than the trigger 22. The operational magazine release 58 can be adapted to be operable with a user's index or trigger finger of the dominant “firing” hand when gripping the firearm in a firing position. The operational magazine release 58 can be actuated by a user applying force in a direction generally transverse to the barrel bore axis 90 and the major vertical plane of the firearm. As particularly illustrated in FIGS. 6 and 8, the operational magazine release 58 can include a two piece construction on opposite sides of the frame that engage with each other through the frame. When a user depresses the magazine release initiation area 57 on either side of the firearm toward the frame 20, a latch 59 is released that holds the magazine within the well. Of particular note, this construction allows either a left-handed or right-handed user to actuate the operational magazine release 58 with the index finger of their predominant hand while gripping the firearm in the firing position.

[0042] According to some embodiments presently disclosed, the secondary magazine well can have a secondary magazine release 68 operable to release the secondary magazine 64 from the secondary magazine well 60. The secondary magazine release 68 can be disposed closer to the rear end 25 of the frame 20 than the trigger 22. The secondary magazine release 68 can be adapted to be operable with a user's thumb when gripping the firearm in a firing position. According to some embodiments presently disclosed, the secondary magazine release 68 can be disposed on the grip 70. The secondary magazine release 68 can be actuated by a user applying force in a direction generally

perpendicular to the bore axis **90** of the barrel **21**. For example, as particularly illustrated in FIGS. **7** and **8**, the secondary magazine release **68** can include a three-piece construction. When a user depresses the magazine release initiation area **67** inward, toward the frame **20**, a latch **69** is released that was holding the magazine **64** within the secondary magazine well **60**.

[0043] According to some embodiments presently disclosed, both the operational magazine release **58** and the secondary magazine release **68** are operable by the user's index finger and thumb respectively, on the same hand, such as the predominant hand, when gripping the firearm in a firing position. The user can thus conveniently release the desired magazine(s) without removing their predominant hand from the firing position. Of particular note, this construction allows either a left-handed or right-handed user to actuate the secondary magazine release **68** with their thumb when gripping the firearm in the firing position.

[0044] Another aspect of the present disclosure is a method for reloading a firearm. Referring to FIG. **9**, an exemplary firearm **10** is illustrated in the fully loaded position, Magazines **54**, **64** are disposed in the operational magazine well **50** and the secondary magazine well **60**.

[0045] As illustrated in FIG. **10**, after a user empties the operational magazine **54**, the operational magazine release **58** can be actuated with the index finger on the user's predominant hand that is grasping the grip **70**. The operational magazine **54** is thereby released from the operational magazine well.

[0046] As illustrated in FIG. **11**, the user can then actuate the secondary magazine release **68** with their thumb on the same hand as the index finger that just released the operational magazine **54**. The secondary magazine **64** is released from the secondary magazine well **60** and can be grasped with the user's secondary hand.

[0047] As illustrated in FIG. **12**, the user can then insert the secondary magazine **64** into the operational magazine well **50**.

[0048] In this way, reloading time can be significantly reduced and the user has a convenient storage system within the firearm frame for a secondary magazine. Moreover, the user can withdraw a third magazine (not shown) and insert it into the secondary magazine well at a desired time. Another particular advantage of certain embodiments of the present disclosure is the interchangeability of the secondary magazine in the secondary magazine well with a secondary firearm, such as a handgun. A user could release the secondary magazine from the secondary magazine well and insert the magazine into a secondary firearm.

[0049] According to some embodiments presently disclosed, the secondary magazine well **60** can have a secondary magazine release **168** (shown in FIGS. **13** and **14**) operable to release the secondary magazine **64** from the secondary magazine well **60**. The secondary magazine release **168** can be disposed closer to the rear end **25** of the frame **20** than the trigger **22**. The secondary magazine release **168** can be adapted to be operable with a user's thumb when gripping the firearm in a firing position. According to some embodiments presently disclosed, the secondary magazine release **168** can be disposed on the grip **70**. The secondary magazine release **168** can be actuated by a user applying force in a direction generally perpendicular to the bore axis **90** of the barrel **21**. For example, as particularly illustrated in FIGS. **13a** and **14**, the secondary magazine

release **168** can include a four-piece construction. When a user depresses the magazine release initiation area **167** inward, toward the frame **20**, a latch **169** is released that was holding the magazine **64** within the secondary magazine well **60**.

[0050] According to some embodiments presently disclosed, both the operational magazine release **58** and the secondary magazine release **168** are operable by the user's index finger and thumb respectively, on the same hand, such as the predominant hand, when gripping the firearm in a firing position. The user can thus conveniently release the desired magazine(s) without removing their predominant hand from the firing position.

[0051] The magazine release initiation area **167** is coupled with the latch **169** using, for example, a fastener **170** (shown in FIG. **14**). A spring **172** is positioned to return the magazine release initiation area **167** to its resting position after the magazine is released.

[0052] According to some embodiments presently disclosed, the secondary magazine well **60** can have a secondary magazine release **268** (shown in FIGS. **15a-b** and **16a-i**) operable to release the secondary magazine **64** from the secondary magazine well **60**. The secondary magazine release **268** can be disposed closer to the rear end **25** of the frame **20** than the trigger **22**. The secondary magazine release **168** can be adapted to be operable with a user's thumb when gripping the firearm in a firing position. According to some embodiments presently disclosed, the secondary magazine release **268** can be disposed on the grip **70**. The secondary magazine release **268** can be actuated by a user applying force in a direction generally perpendicular to the bore axis **90** of the barrel **21**.

[0053] According to some embodiments presently disclosed, both the operational magazine release **58** and the secondary magazine release **168** are operable by the user's index finger and thumb respectively, on the same hand, such as the predominant hand, when gripping the firearm in a firing position. The user can thus conveniently release the desired magazine(s) without removing their predominant hand from the firing position. Of particular note, this construction allows either a left-handed or right-handed user to actuate the secondary magazine release **268** with their thumb when gripping the firearm in the firing position.

[0054] Referring to FIGS. **15a-b** and **16a-i**, according to some embodiments presently disclosed, the secondary magazine release **268** comprises a retaining pin **340** (shown in FIGS. **17a-f**) configured to extend through the secondary magazine well **60**. The retaining pin **340** comprises a front portion **342** and a rear portion **344**.

[0055] According to some embodiments presently disclosed, the retaining pin **340** comprises a notched section **360** to clear the magazine. According to some embodiments presently disclosed, the retaining pin **340** comprises a catch **355** to engage the magazine. The retaining pin **340** is positioned in the secondary magazine well **60** so as to position the notched section **360** towards the rear end **25** of the frame **20**.

[0056] According to some embodiments presently disclosed, the retaining pin **340** comprises a notch **365** configured to accommodate a portion of a spring member **370**. According to some embodiments presently disclosed, the notch **365** is positioned below the catch **355**. According to some embodiments presently disclosed, the notch **365** is positioned adjacent to the catch **355**. According to some

embodiments presently disclosed, the notch 365 is positioned towards the rear portion 344 of the retaining pin 340.

[0057] According to some embodiments presently disclosed, the spring member 370 is an elongated rod comprising a top portion 372 and a bottom portion 374. According to some embodiments presently disclosed, the top portion 372 of the spring member 370 is configured to engage the notch 365 of the retaining pin 340. According to some embodiments presently disclosed, the bottom portion 374 of the spring member 370 is configured to engage a cavity 376 (shown in FIG. 18) in the secondary magazine well 60.

[0058] According to some embodiments presently disclosed, the retaining pin 340 is configured to move from a first (secure) position to a second (release) position and back to the first (secure) position. The first (secure) position is position in which the catch 355 of the retaining pin 340 engages the catch of the magazine and magazine is secured in the secondary magazine well 60. The second (release) position is position in which the magazine may be freely withdrawn from the secondary magazine well 60.

[0059] According to some embodiments presently disclosed, the spring member 370 applies a first force to the retaining pin 340 to keep the retaining pin 340 in the first (secure) position and/or to prevent the magazine from being withdrawn from the secondary magazine well 60. To move the retaining pin 340 towards the second (release) position and/or to be able to withdraw the magazine from the secondary magazine well 60, a user may apply a second force to the front portion 342 of the retaining pin 340 that is opposite the first force being applied by the spring member 370. The second force applied by the user is greater than the first force being applied in the opposite direction by the spring member 370. Releasing the front portion 342 of the retaining pin 340 causes the retaining pin 340 to return to the first (secure) position due to the force being applied by the spring member 370.

[0060] According to some embodiments presently disclosed, when the retaining pin 340 is in the first (secure) position, the top portion 372 of the spring member 370 is positioned a first distance 382 from the vertical axis 380 of the secondary magazine well 60 while the bottom portion 374 is positioned along the vertical axis 380 (shown in FIG. 22). According to some embodiments presently disclosed, when the retaining pin 340 is in the second (release) position, the top portion 372 of the spring member 370 is positioned a second distance 384 from the vertical axis 380 of the secondary magazine well 60 while the bottom portion 374 is positioned along the vertical axis 380 (shown in FIG. 23). The second distance 384 is greater than the first distance 382. According to some embodiments presently disclosed, the spring member 370 is being compressed when the retaining pin 340 is in the first (secure) position and is being further compressed when the retaining pin 340 is in the second (release) position to be able to constantly push the retaining pin 340 towards the first (secure) position.

[0061] Although the user may apply the second force directly to the front portion 342 of the retaining pin 340 in order to move the retaining pin 340 towards the second (release) position and/or to be able to withdraw the magazine from the secondary magazine well 60, according to some embodiments presently disclosed a lever 321 may be coupled with the front portion 342 of the retaining pin 340. The lever 321 provides a larger surface area to accommodate user's thumb and to allow easier withdraw of the magazine

from the secondary magazine well 60. According to some embodiments presently disclosed, the lever 321 is coupled with the front portion 342 of the retaining pin 340 using, for example, a fastener 394 (shown in FIGS. 15a-b). The fastener 394 may be a pin, a screw, a set screw, a full dog point set screw, or a dogleg set screw.

[0062] According to some embodiments presently disclosed, the lever 321 comprises a front surface 390 and a rear surface 392 located opposite the front surface 390 (shown in FIGS. 15a-b). According to some embodiments presently disclosed, the lever 321 comprises a tab 398 protruding from the rear surface 392 (shown in FIG. 15b) and a through opening 396 configured to accommodate the fastener 394.

[0063] According to some embodiments presently disclosed, the front portion 342 is bifurcated 386 (shown in FIGS. 17a, 17f, 17h) with a fastener hole 388 (shown in FIG. 17e) bored into the retaining pin 340. The bifurcated portion 386 is configured to accommodate the tab 398 and the fastener hole 388 is configured to accommodate the fastener 394.

[0064] According to some embodiments presently disclosed, a second lever 400 may be coupled with the rear portion 344 of the retaining pin 40 to allow ambidextrous operation of the secondary magazine release 268.

[0065] The lever 400 provides a larger surface area to accommodate user's thumb and to allow easier withdraw of the magazine from the secondary magazine well 60. According to some embodiments presently disclosed, the lever 400 is rotationally coupled with the rear portion 344 of the retaining pin 340 using, for example, a pin 410 (shown in FIGS. 15a-b).

[0066] According to some embodiments presently disclosed, the lever 400 comprises a front surface 415 and a rear surface 420 located opposite the front surface 415 (shown in FIGS. 15a-b). According to some embodiments presently disclosed, the lever 400 comprises a tab 425 (shown in FIG. 15b) protruding from the rear surface 420 and a through opening 430 configured to accommodate the pin 410. According to some embodiments presently disclosed, the lever 400 comprises at least one rocker tab 435 (shown in FIG. 15a) protruding from the rear surface 420.

[0067] According to some embodiments presently disclosed, the rear portion 344 comprises two lever tabs 440 having through holes 445 configured to accommodate the pin 410. Depressing the lever 400 rocks the lever 400 about the fulcrum 435 drawing the retaining pin 340 from the first (secure) position towards the second (release) position.

[0068] To move the retaining pin 340 towards the second (release) position and/or to be able to withdraw the magazine from the secondary magazine well 60, the user may apply a third force to the lever 400 of the retaining pin 340 that is opposite the first force being applied by the spring member 370. The third force applied by the user is greater than the first force being applied in the opposite direction by the spring member 370. Releasing the lever 400 of the retaining pin 340 causes the retaining pin 340 to return to the first (secure) position due to the force being applied by the spring member 370.

[0069] According to some embodiments presently disclosed, the grip 70 is removably coupled with a grip mounting interface 525 of the frame 20 using, for example, a fastener 530 as shown in FIG. 24. The fastener 530 may be a pin, a screw, a setscrew, a full dog point set screw, or a dogleg set screw. The grip mounting interface 525 comprise

an opening (not shown) configured to accommodate the fastener 530. An upper surface 535 of the grip 70 comprise an opening 540 (shown in FIG. 25) configured to accommodate the fastener 530. The fastener 530 is inserted into the secondary magazine well 60 and through the opening 540 (shown in FIGS. 26a-b) before coupling the grip 70 to the grip mounting interface 525 of the frame 20. FIG. 27 depicts the connection of the grip 70 with the grip mounting interface 525 by the fastener 530.

[0070] According to some embodiments presently disclosed, the grip 70 with the secondary magazine well 60 can be removed from the firearm 10 and installed on another firearm (not shown). According to some embodiments presently disclosed, operational magazine well 50 accommodates magazines for the firearm 10 while the grip 70 with the secondary magazine well 60 is configured to accommodate a magazine for another firearm, such as a handgun and/or another rifle. A user could release the secondary magazine from the secondary magazine well and insert the magazine into a secondary firearm that does not accommodate magazines for the operational magazine well 50.

[0071] According to some embodiments presently disclosed, the firearm 10 is an AR type firearm.

[0072] In the context of the specification, the terms “rear” and “rearward,” and “front” and “forward” have the following definitions: “rear” or “rearward” means in the direction away from the muzzle of the firearm while “front” or “forward” means it is in the direction towards the muzzle of the firearm.

[0073] While a current embodiment of a firearm having an operational magazine well and a secondary magazine well has been described in detail, it should be apparent that modifications and variations thereto are possible, all of which fall within the true spirit and scope of the invention. With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

[0074] Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

[0075] While several illustrative embodiments of the invention have been shown and described, numerous variations and alternative embodiments will occur to those skilled in the art. Such variations and alternative embodiments are

contemplated, and can be made without departing from the scope of the invention as defined in the appended claims.

[0076] As used in this specification and the appended claims, the singular forms “a,” “an,” and “the” include plural referents unless the content clearly dictates otherwise. The term “plurality” includes two or more referents unless the content clearly dictates otherwise. Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which the disclosure pertains.

What is claimed is:

1. A firearm comprising:
 - a frame having a rear end and a forward end opposite the rear end, wherein the frame comprises:
 - a removable grip;
 - an operational magazine well adapted to receive an operational magazine; and
 - a secondary magazine well disposed within the removable grip and adapted to receive a secondary magazine, wherein the secondary magazine well is nonoperational.
2. The firearm of claim 1, wherein the secondary magazine well is disposed closer to the rear end of the frame than the operational magazine well.
3. The firearm of claim 1, wherein a distance between an upper end of the operational magazine well to the barrel is lower than a distance between an upper end of the secondary magazine well to the barrel.
4. The firearm of claim 1, wherein a general major angle of the operational magazine well to a bore axis of the barrel is different than a general major angle of the secondary magazine well to the bore axis of the barrel.
5. The firearm of claim 1, wherein an inner cross-sectional profile of the operational magazine well is complimentary to an inner cross-sectional profile of the secondary magazine well such that a magazine disposed within the secondary magazine well is capable of being inserted into the operational magazine well and a magazine disposed within the operational magazine well is capable of being inserted into the secondary magazine well.
6. The firearm of claim 1, wherein the operational magazine well has an open upper end and wherein the secondary magazine well has a closed upper end.
7. The firearm of claim 1, wherein the firearm further comprises an operational magazine release adapted to release a magazine from the operational magazine well and a secondary magazine release adapted to release a magazine from the secondary magazine well.
8. A removable grip comprising:
 - a magazine well adapted to receive a magazine, wherein the magazine well is nonoperational.
9. The removable grip of claim 8, wherein the magazine well has a closed upper end.

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