IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ATRIUS DEVELOPMENT GROUP CORP.

Petitioner,

v.

ABC IP LLC

Patent Owner.

Inter Partes Review No.: 2025–1473

PETITION FOR INTER PARTES REVIEW OF USPN 12,038,247

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Table of Contents

Table of Figures

Petitioner's Exhibit List[1]

Exhibit #	***Description***
1001	U.S.P.N. 12,038,247 ("Blakely '247")
1002	Prosecution History of Blakely '247
1003	Provisional 63/374,941 relied upon by Blakely '247 ("Blakely Prov")
1004	Declaration of Malcolm Brown ("Brown Decl")
1005	Bingly, Radian Mod for Tommy Trigger upgrade kit, YouTube video June 5, 2022 (available at https://www.youtube.com/watch?v=Kj2S8gfTWew) ("Bingly_1")
1006	Bingly, Tommy Trigger's Alamo 15 and Rare Breed FRT/E3 Safety Selector Guide, YouTube video June 29, 2022 (available at https://www.youtube.com/watch?v=00mQ2mfjqfU) ("Bingly_2)[2]
1007	Bingly, Tommy Trigger 3 Selector Install for Alamo 15, YouTube video August 1, 2022 (available at https://www.youtube.com/watch?v=PSvjkaUGJ3Q) ("Bingly_3")
1008	*Rare Breed, et al. v. Strbac, et al*., 1:22-cv-00280 (N.D. Ohio) Complaint, Dkt. 1 ("Complaint")
1009	U.S.P.N. 7,398,723 ("Blakely '723")
1010	U.S.P.N. 2,056,975 ("Michal '975")
1011	U.S.P.N. 4,023,465 ("Inskip '465")
1012	U.S.P.N. 3,045,555 ("Stoner '555")
1013	U.S.P.N. 9,952,012 ("Fellows '012")
1014	Applicant appeal brief from prosecution history of Blakley '723
1015	U.S.P.N. 10,514,223 ("Rounds '223")

[1] All citations to issued patents are to column:line, and all citations to videos are to minute:second.

[2] Divided into three parts, so as to meet the 25 Mb upload limit.

1016	Red line comparison of Blakley '247 specification to Blakely provisional application 63/374,941
1017	45Snipers, How an AR-15 Rifle Works, YouTube video March 15, 2017, available at https://www.youtube.com/watch?v=ASLjfuDsrzo ("AR-15 Video")
1018	Declaration of Todd Price (Page Vault) authenticating YouTube videos ("Price Decl.")
1019	Page Vault explanation of files and data obtained.
1020	Page Vault capture summary of files and data obtained.
1021	Page Vault capture of Ex.1005 downloaded to Wayback Machine on August 13, 2022.
1022	Page Vault capture of Ex.1006 downloaded to Wayback Machine on July 5, 2022.
1023	Page Vault capture of Ex.1007 downloaded to Wayback Machine on May 10, 2023.

I. INTRODUCTION

Atrius Development Group Corp. ("Petitioner") requests *inter partes* review ("IPR") of claims 1-23 (the "Challenged Claims") of U.S.P.N. 12,038,247, Ex.1001.[3] Blakely '247 teaches a forced reset trigger ("FRT") with a three-position selector switch. While the technology will be explained in detail below, some background will be useful to understanding the source of the prior art.

In February 2022, ABC IP sued Tommy Triggers ("Tommy"), on another unrelated patent. Tommy settled in October 2022, for lack of financial ability to fight the suit. Tommy had been selling FRT's with three-position selector switches. As part of the settlement, ABC IP ("ABC") acquired the rights to Tommy Trigger's owner's IP. The owner, Mr. Strbac, had filed a provisional application on January 10, 2022, for an FRT with a 3-position selector switch. Blakely filed a provisional on September 8, 2022, for a nearly identical invention, which forms the priority document for Blakely '247. Now that ABC owned both patents, they used attorney Glenn Bellamy to prosecute them both. Mr. Bellamy was also ABC's litigation counsel in the Tommy Trigger case. Mr. Bellamy filed the Strbac '003 patent on October 21, 2022, two months after Blakely's provisional was filed. As the two patent applications are commonly owned, under

[3] Substantial portions of this Petition were copied from the expert report of Malcolm Brown (Ex.1004).

§ 102(b)(2)(C), it would seem that Strbac ’003 is not prior art to Blakely ’247. However, Strbac’s products sold by Tommy Trigger would still be prior art to Blakely ’247. While ABC and Mr. Bellamy were clearly aware of Tommy Triggers products which were FRT’s with 3-position selectors, no one disclosed this prior art to the examiner. In summary,

1.10.22	Tommy Triggers files the Strbac Provisional.
2.21.22	ABC sues Tommy Triggers. Ex.1008 (Tommy).
6.5.22	Bingly posts a video showing how to modify a 2-position selector switch to be used with an FRT. Ex.1005 (Bingly_1).
6.29.22	Bingly, Tommy Trigger's Alamo 15 and Rare Breed FRT/E3 Safety Selector. Ex.1006 (Bingly_2).
8.1.22	Bingly posts a video demonstrating how to install a Tommy Trigger for a 3-position selector switch. Ex.1007 (Bingly_3).
9.8.22	ABC files the Blakley Provisional.
10.21.22	ABC files Strbac ’003 claiming priority to Strbac Prov.
5.20.23	ABC files Blakely ’247 claiming priority to Blakely Prov. Ex.1001 (Blakely ’247)

As the Board may only consider printed publications and patents in an IPR, Petitioner relies upon a series of three videos pertaining to Tommy Triggers’ FRT to be used with a 3-position selector switch. Exs. 1005–1007. The videos also demonstrate how to fashion your own 3-position selector switch for use with an

FRT. Additionally, ABC's complaint against Tommy contains a detailed description of how these devices work. Ex.1008.

II. GROUNDS FOR STANDING

Petitioner certifies that the '247 Patent is eligible for IPR.

III. STATEMENT OF PRECISE RELIEF REQUESTED

Petitioner requests the Challenged Claims be found unpatentable as follows:

Ground	Claims	Basis	Reference(s)
1	1-23	§103	Blakley '723, Bingly_1, Bingly_2, Bingly_3, Complaint
2	1-23	§103	Blakley '723, Bingly_1, Bingly_2, Bingly_3
3	1-23	§103	Blakley '723, Bingly_2

Blakley '723, Bingly_1, Bingly_2, Bingly_3, Complaint are all analogous art to Blakley '247, in that they all pertain to the same field of endeavor and/or reasonably pertinent problems said to be addressed by Blakley'247. For example, like Blakley'247, each of the prior art references describe forced reset triggers with safety selector switches to be used with AR-15 style firearms.

While Bingly_1, Bingly_2, Bingly_3, and Complaint are very similar prior art disclosures, multiple Grounds were necessary, as Petitioner is uncertain about which of the printed publications the Board will consider as prior art and also because there is uncertainty as to whether claims 14–23 are entitled to the priority date claimed.

IV. OVERVIEW OF THE '247 PATENT

A. Background of FRT's

Blakley '247 relates to AR-pattern firearms (e.g., AR-15) which is a civilian, semi-automatic version of the fully automatic M-16 used by our military since 1964. At that time, civilians were allowed to own fully automatic firearms (i.e., machine guns). In 1986, the National Firearms Act ("NFA") was amended to prevent the further manufacture of machine guns for the civilian market. As the supply of pre-1986 machine guns dwindled, the price of the existing supply of machine guns that civilians could legally own skyrocketed. Currently, a pre-1986 M-16 sells for around $20,000, whereas, an AR-15 can be had for under $1,000. Ex.1004 (Brown Decl.) ¶38.

Consequently, there have been a number of innovations designed to mimic fully-automatic fire, while not running afoul of the NFA. For example, a bump stock is an accessory that replaces a standard rifle (e.g., AR-15) stock, and it allows the firearm to recoil back and forth, using the recoil energy to cycle the trigger more rapidly than a shooter could typically pull it. Another such innovation is a binary trigger which doubles the rate of fire by firing when the trigger is pulled and firing against when the trigger is released. While there are many other such innovations, for our purposes, the last one of note is the forced reset trigger ("FRT") which is what the '247 patent and all of the prior art references specifically relate to. In an FRT, the reciprocating bolt of the AR-15 is used to force the trigger to reset very rapidly. So, rapidly that as the bolt chambers the next round, the trigger may be pulled again. Thus, by applying a steady backward pressure on the trigger the firearm will continue firing at rate remarkably close to a machine gun (e.g., 800 rounds per minute in an AR-15) , while resetting the trigger completely between every single round, to avoid being classified as an illegal machinegun. *Id.*, ¶39.

Forced reset triggers have been around for decades. For example, U.S.P.N. 2,056,975 discloses an FRT for a Colt 1911 handgun. Ex.1010 ("Michal '975"). The patent describes the invention as a "machine-gun" because in 1934, when Michal '975 was filed, the NFA had just been passed and for the first time legally defined the term "machine gun." U.S.P.N. 4,023,465 discloses a forced reset trigger for use with a semi-automatic rifle. Ex.1011. U.S.P.N. 7,398,723 discloses a forced reset trigger for use in an AR-15. Ex.1009 ("Blakely '723").[4] While FRT's have been known for a long period of time, the Bureau of Alcohol Tabacco Firearms Explosives ("ATF"), the federal agency responsible for regulating firearms, took the position that FRT's were "machine guns" as defined by the NFA. Consequently, there was no market for them. However, this changed

[4] The inventor of Blakely '723, which recently expired, is the same inventor on the patent-at-issue.

last year when a court ruled that FRT's are not "machine guns" as defined by NFA. *National Association for Gun Rights, et al. v. Garland*, 4:23-cv-00830 (N.D. Tex.–Ft. Worth). The ATF settled the case, agreeing to halt its actions against FRT's and FRT manufacturers.[5] *Id.*, ¶¶40–44.

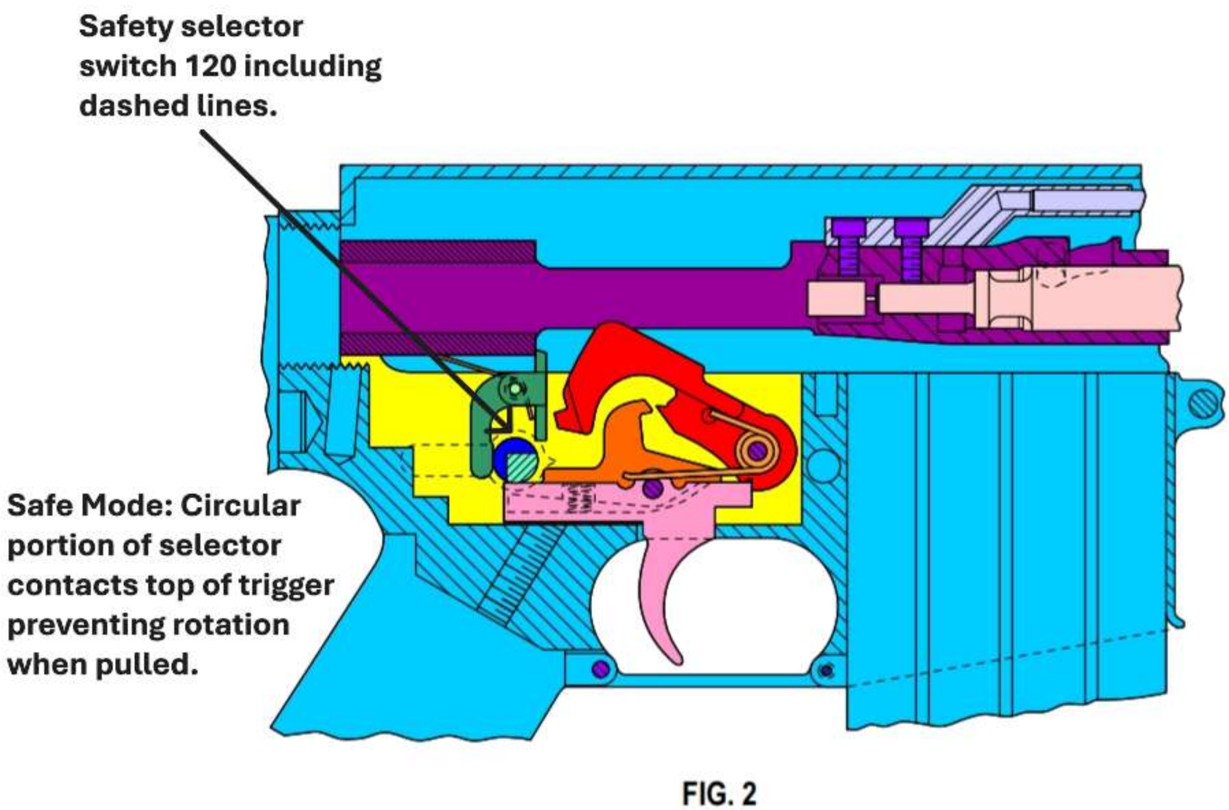
B. How a Standard M-16 Functions

The M-16 (fully-automatic) and AR-15 (semi-automatic) were invented by Eugene "Gene" Stoner in 1959. Shortly thereafter the M-16 was adopted by all branches of the U.S. military and remains the current assault rifle used by most branches of the service. The AR-15 remains the most popular rifle for the U.S. civilian population. Any person of ordinary skill in the art ("POSITA") would understand how these firearms function. Mr. Stoner obtained patents on various portions of these weapons, we focus on his trigger patent for the M-16. Ex.1012 ("Stoner '555"). Petitioner is not relying upon Stoner '555 as prior art, but rather as evidence of how these firearms operate, as would have been known to a POSITA. The workings of an AR-15 and M-16 as understood by a POSITA can be readily understood by watching the video at Ex.1017 ("AR-15 Video") and the reader is encouraged to do so now. Ex.1003, ¶¶45–46.

[5] Most recently fifteen states have challenged the ATF's settlement and are urging that FRT's be classified as machine guns. *State of New Jersey, et al. v. Bondi*, 1:25-cv-01807 (D. Maryland).

1. Safe mode

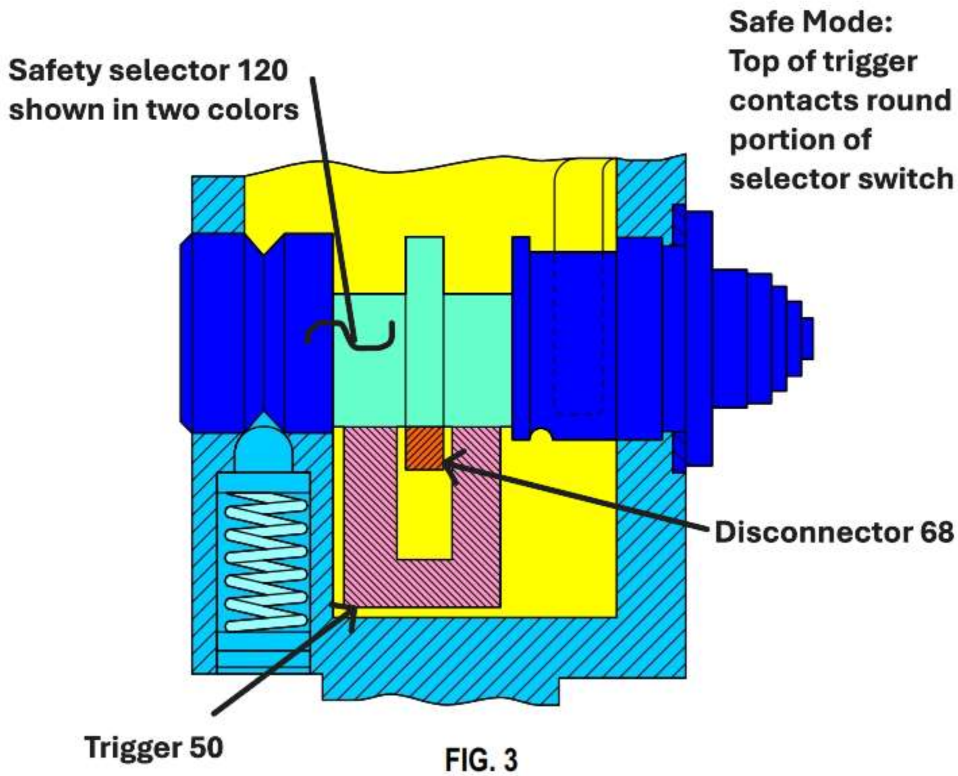
As shown in Fig.2 below, when safety selector switch 120 is pointing forward, the firearm is in safe mode. Ex.1012, 3:35–39; Figs.1, 3.



Stoner '555, Fig.2[6]

[6] Colorized figures from patents throughout this Petition have been altered only in the sense the reference numbers have been removed, colors were added, and in some instances, labels were added.

As shown in Fig.3 below, a wide semi-circular portion[7] of safety selector 120 contacts the top of trigger 50, as well as the top of disconnector 68.[8] Ex.1012, 3:40-50. As the trigger is trapped between the upper portion of fire control pocket 22 and selector switch 120, it cannot rotate, and the firearm cannot be fired. Ex.1003, ¶47.



Stoner '555, Fig.3

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[7] The safety selector switch is one piece; however, two colors were used in the diagrams to better illustrate how the switch interfaces with the trigger and disconnector.

[8] Stoner '555 refers to disconnector 68 as "intermediate sear," Petitioner applies the language of Blakely '247 to its descriptions throughout.

2. Semi-automatic Mode

As shown in Fig.5 below, when the selector 120 is pointing upward, the firearm is in semi-automatic mode (i.e., each pull of the trigger will result in one round being fired and the firearm automatically reloads after each shot). Ex.1012, 3:64–68; Fig.6. Ex.1003, ¶48.

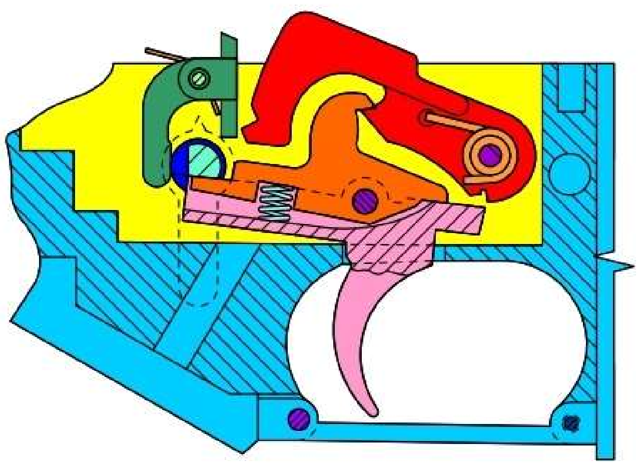


FIG. 5

Stoner '555, Fig.5

As seen in Fig.6 below, this is made possible because safety selector 120 has a wide, flat portion that is now above trigger 50 and disconnector 68. This allows both items to rotate. Ex.1012, 3:68–4:2. (Note the space below trigger 50. In the figure, the trigger is pulled to the rear. When the trigger is released, the space would be between the top of trigger 50, in its set position, and safety selector 120). Ex.1003, ¶49.

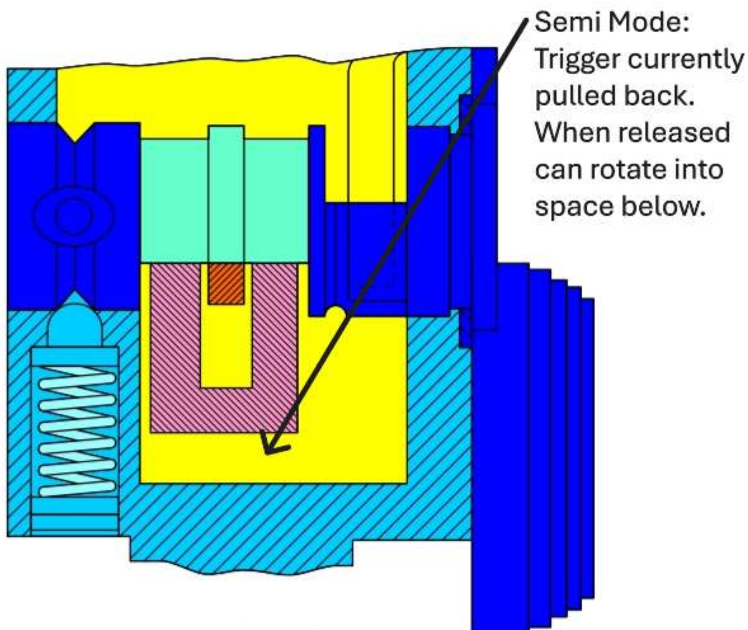


FIG. 6

Stoner '555, Fig.6

As demonstrated in Fig.4 below, as trigger 50 is pulled rearward trigger sear 56 rotates away from sear catch 60 of hammer 62, until contact is lost and hammer 62 is released. Ex.1012, 4:16–20. As hammer 62 is spring loaded it will rotate about hammer pin 82 and hammer 62 will strike a firing pin impacting a primer on the chambered cartridge (not shown). Ex. 1003, ¶50.

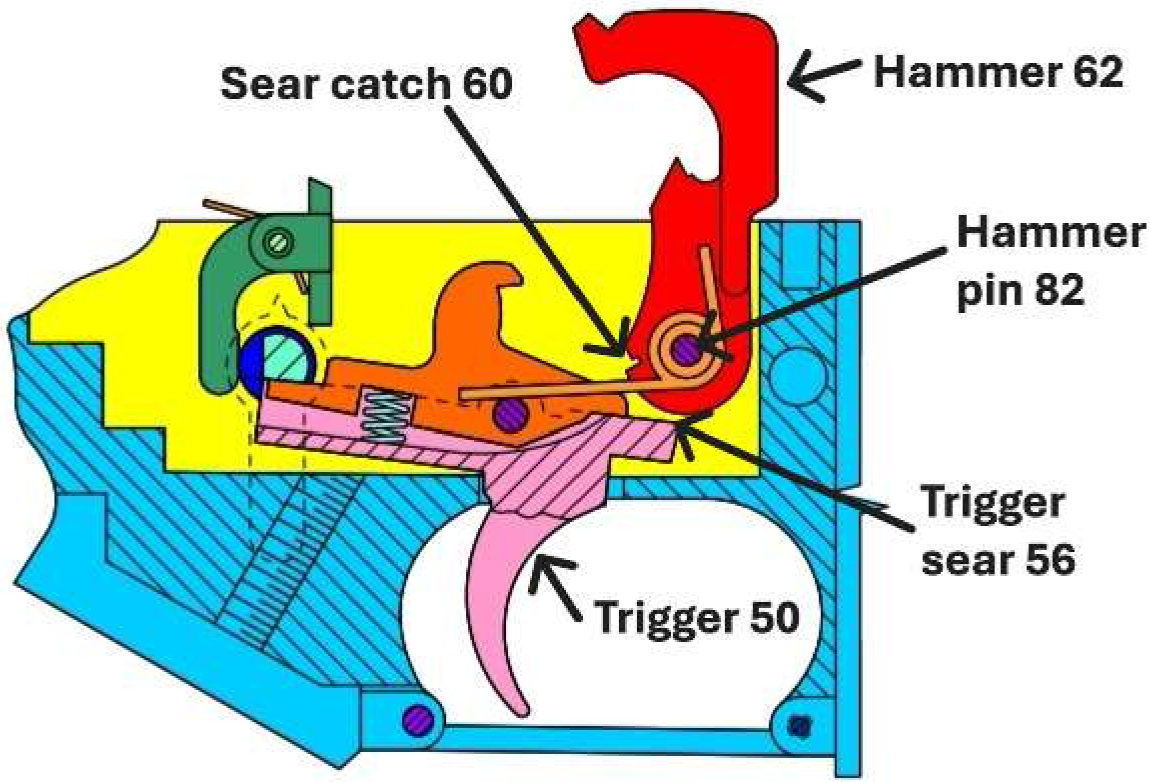


FIG. 4

Stoner '555, Fig.4

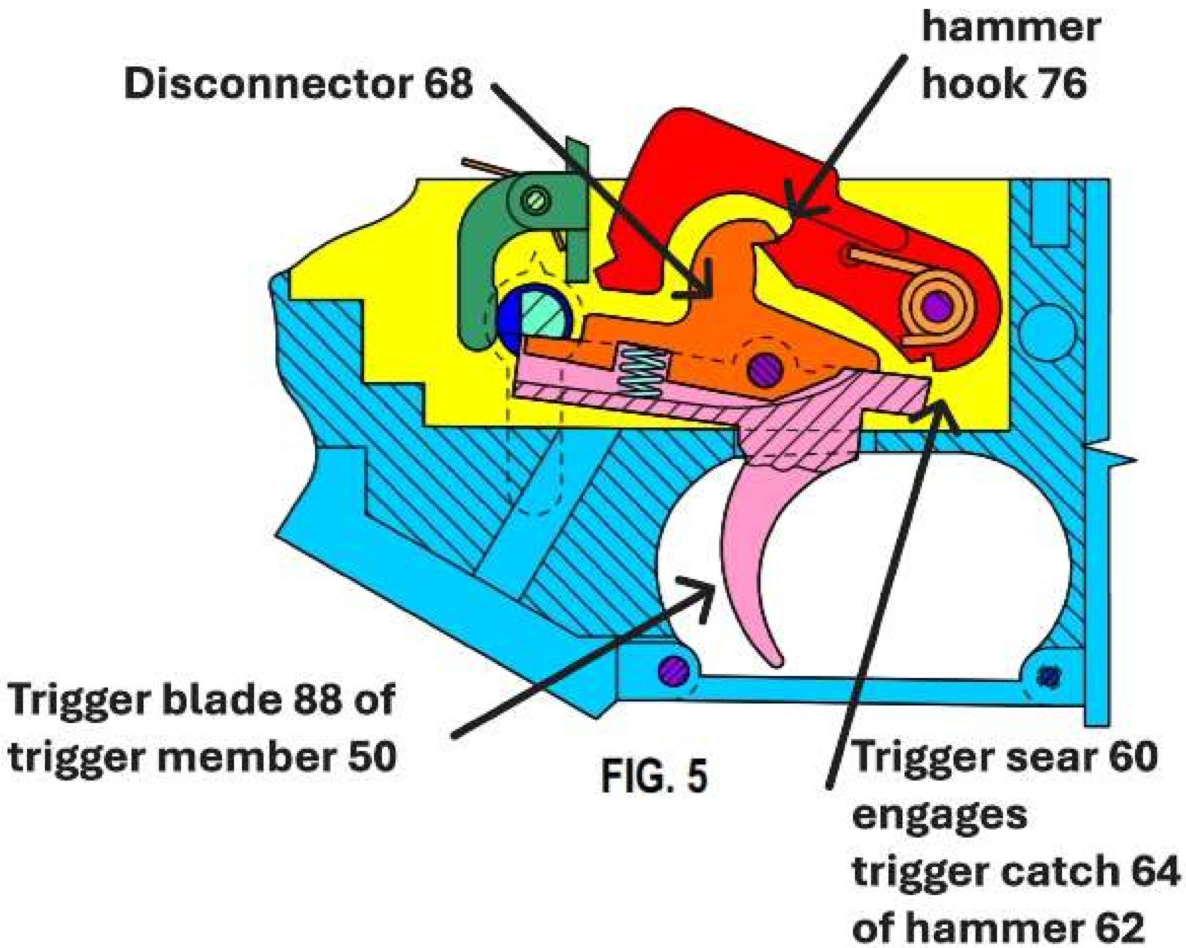
While not shown, the primer in turn ignites the gunpowder contained in the cartridge causing a small explosion which propels a bullet down the barrel of the rifle. As the bullet nears the end of the barrel it will pass by a small hole (gas port) allowing some explosive gas to exit through a gas tube which begins at the gas port and the end of which mates with a gas key on the bolt carrier assembly. This rearward gas enters into a gas key and causes the bolt carrier assembly to be propelled rearward toward the rifle butt. These functions are shown in Ex.1017 (AR-15 Video). Ex.1003, ¶51.

Bolt carrier assembly 42 strikes the head of hammer 62 causing it to pivot counter-clockwise. Hook 76 on hammer 62 will engage with hook 74 of disconnector 68,[9] thus, locking hammer 62 rearward. Ex.1012, 4:20–24. Ex.1003, ¶52.

As shown in Ex.1017 (AR-15 Video), as the bolt carrier assembly moves back, it will eject the spent cartridge through an ejection port on the right side (from the shooter's perspective) of the rifle. As the bolt carrier assembly continues rearward, it will strike a buffer and spring contained in the stock of the rifle. The buffer assembly acts as a shock absorber, halting the rearward motion of the bolt carrier

[9] Disconnector 60 is spring biased 72 such that it can rotate slightly counterclockwise when hammer hook 76 rubs past it. The spring then forces disconnector hook 74 into engagement with hammer hook 76.

assembly. The buffer spring then propels the bolt carrier assembly forward. As the bolt carrier moves forward it will pick up the next round from the magazine. Ex.1003, ¶53.



Stoner '555, Fig.5

At this point, as seen in Fig.5 above, the shooter must release trigger blade 88, allowing spring loaded trigger member 50 to rotate such that sear 60 engages with sear catch 64 of hammer 62, and hook 74 of disconnector 68 disengages from hammer hook 76. Ex.1012, 4:9–15. Ex. 1003, ¶54.

3. Fully-automatic Mode

When safety selector switch 120 is pointing rearward, the firearm is in fully-automatic mode. *Id*., 4:25–28; Figs. 7–9. Safety selector 120 has a narrow semi-circular portion which only extends downward into the channel of the trigger, thus, engaging the tail of disconnector 68, preventing it from engaging hook 76 of hammer 62. Ex. 1012, 4:28–41; *Compare* disconnector 68 in Fig.6 *with* that in Fig.8. Ex.1003, ¶55.

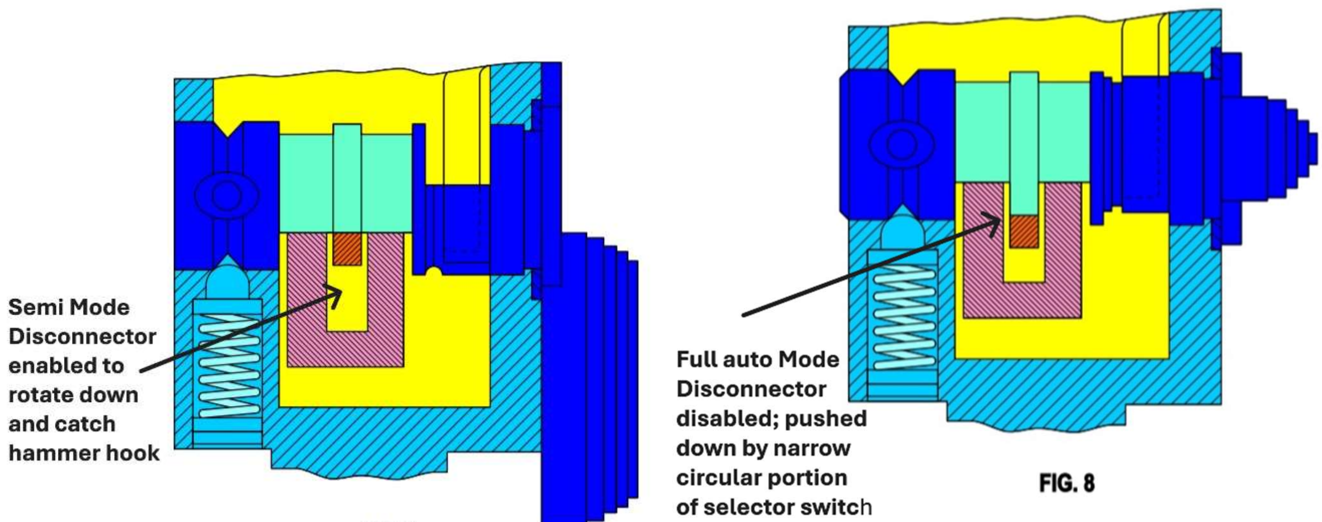
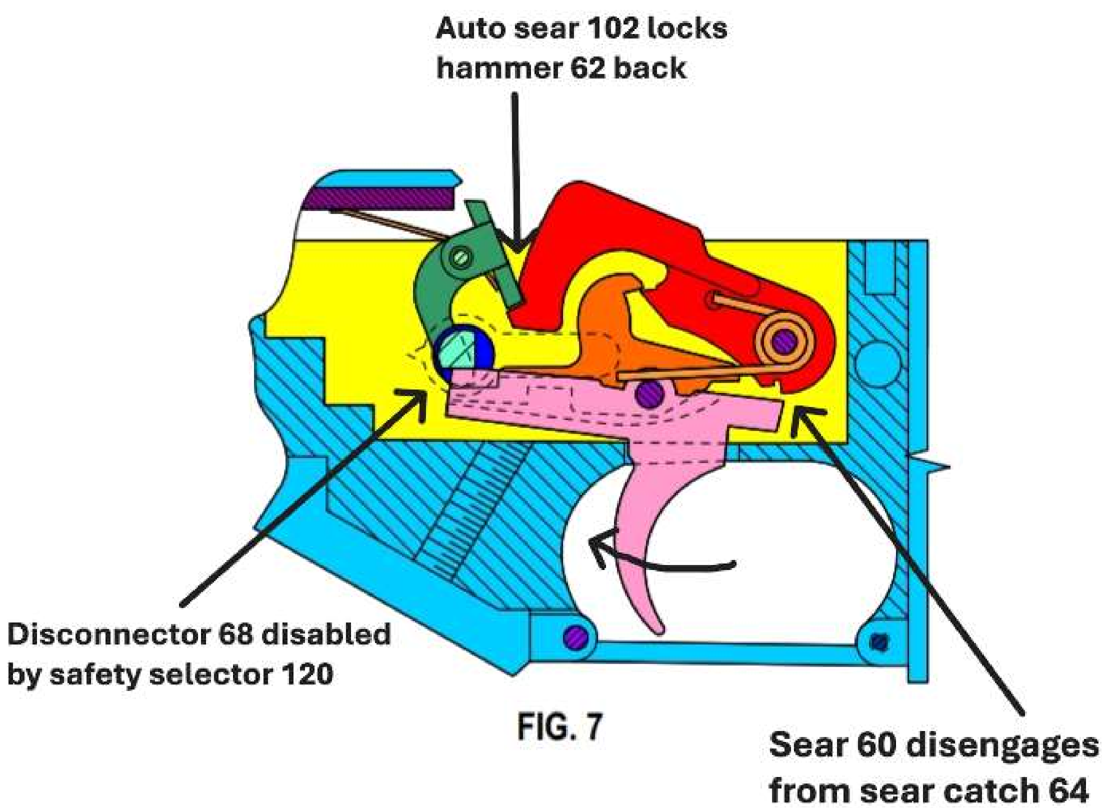


FIG. 6

Stoner '555, Figs. 6 & 8

The initial sequence of operations mirrors that of semi-automatic mode. Trigger 50 is rotated until sear 60 comes out of engagement with sear catch 64; and hammer 62 falls setting off a round. Now, however, (as shown in Fig.7 below) as the bolt carrier cycles rearward and strikes hammer 62, disconnector 68 is held back by safety selector 120 and cannot engage hook 76 of hammer 62. As bolt carrier 42 continues rearward it rotates auto sear 102 which engages sear abutment 92 of hammer 62, thus preventing the hammer from rotating forward. Ex.1012, 4:42–47.



Stoner ’555, Fig.7

In this respect, the auto sear serves a role similar to that of disconnector 68. However, when the bolt carrier reverses directions and begins moving forward, it strikes auto sear 102 causing it to rotate clockwise back to its starting position. In doing so, it releases hammer 62, which strikes the next round. This cycle continues until the shooter releases trigger 50. Ex.1012, 4:47–56. So, the firearm will continue firing, so long as trigger 50 is held rearward. Ex.1003, ¶57.

Therefore, full-auto mode requires disabling the disconnector and providing another disconnector-type mechanism which holds the hammer back and releases when the bolt carrier is almost in battery. This is very similar to how an FRT operates with the exception that the disconnector-type mechanism (the cam) must also reset the trigger to avoid being classified as an illegal machinegun. If the FRT does not have a semi-automatic mode, the disconnector can be omitted. Ex.1003, ¶57.

C. How a Standard AR-15 Functions

A standard AR-15 functions in the same way as an M-16 with the exception that it does not contain an auto sear. So, its safety-selector switch only needs two modes (safe and semi). Because the disconnector never needs to be disabled, some manufacturers shortened the disconnector tail to make it more difficult to convert an AR-15 into an illegal machinegun.[10] Ex,1003, ¶58.

D. ’247 Patent Disclosure

On April 25, 2003, Brian Blakely filed U.S.P.N. 7,398,723 for forced reset trigger for use in an AR15. Ex.1009 (“Blakely ’723”). Blakely ’247 builds upon the Blakely ’723 by adding a three-position selector switch to allow the shooter to choose between safety on, semi-automatic fire, and forced reset fire.[11] Three-position selector switches were widely known. As discussed, the original M-16

[10] In a similar fashion, manufactures pressured by the ATF, have at various times made other small changes to the AR-15 to make converting it to full-auto more difficult. However, in more recent years, the ATF has backed away from this position and an AR-15 may have parts identical or nearly identical to that of an M-16 with the exception of an auto sear.

[11] Mr. Blakely attempted to market his FRT but was unable to convince the ATF that it did not constitute an illegal machine gun. He was unsuccessful in his legal actions and ultimately abandoned his plans. ABC saw Blakely ’723 as potentially problematic prior art for another patent that ABC was enforcing. So, it purchased Blakely ’723 and hired him as an expert which resulted in the Blakely ’247, now at issue.

had one to provide the user safe, semi-automatic, and fully-automatic modes of fire. *See* Ex.1012. Likewise, most binary triggers have 3-position selector switches (i.e., safe, semi, and binary modes). *See e.g.*, Ex.1013, (U.S.P.N. 9,952,012). Ex.1003, ¶59.

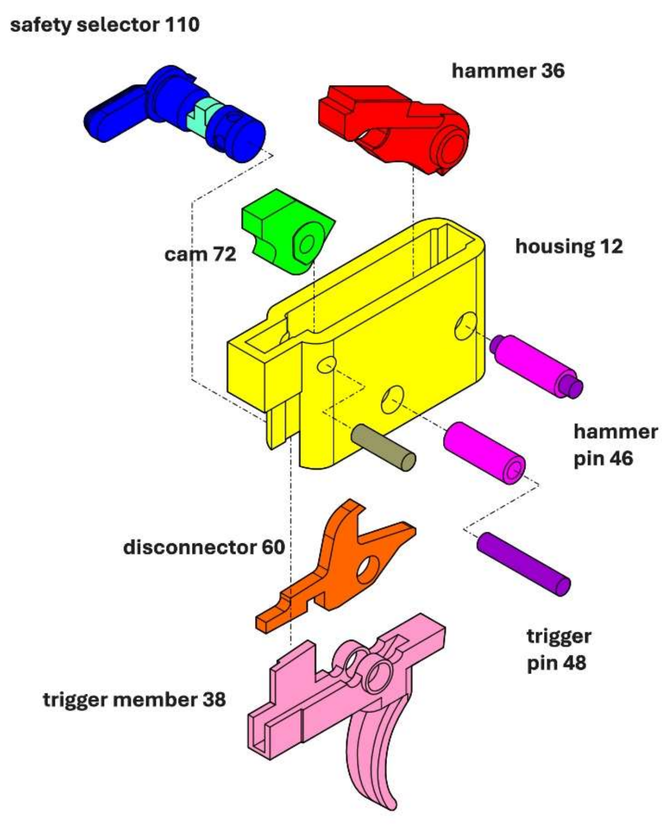


FIG. 3

Blakely ’247, Fig.3

1. 3-Position Safety Selector Description

a. Safe Mode

As can be ascertained from Fig.4B below, when safety selector 110 is set to safe mode, wide semi-circular portion 112 of safety selector 110 prevents trigger 38 from being pulled rearward to fire the weapon. Ex.1001, 8:43–48. Specifically, safety selector 110 is in contact with the tail portion of trigger member 38, effectively locking trigger 38 in place. Ex.1001, 8:45–48; Fig.4A. This is identical to how a standard safety selector switch functions in safe mode. Ex.1003, ¶60.

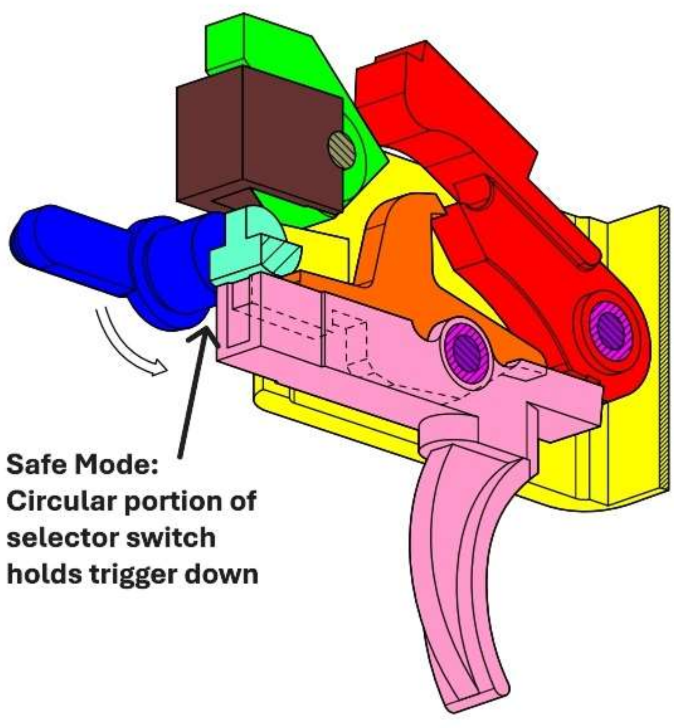


FIG. 4B

Blakely '247, Fig.4B

b. Semi-automatic Mode

Fig.5B below depicts safety selector 110 in semi-automatic mode. Flat portion 114 of safety selector 110 now allows trigger 38 to be pulled and weapon fired. Flat portion 114 provides a gap between the tail portion of trigger member 38, as well as tail 66 of disconnector 60, thus allowing both trigger 38 and disconnector 60 to function. Ex.1001, 8:48–54; Fig.5A.

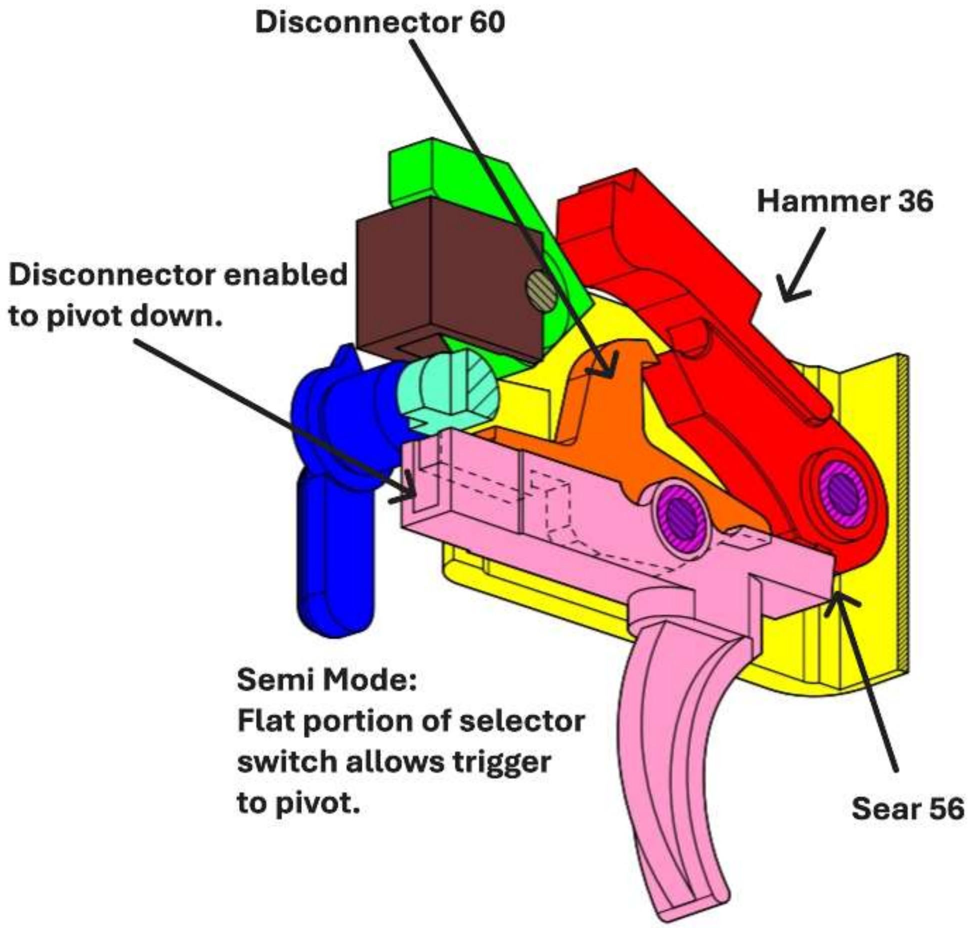


FIG. 5B

Blakely '247, Fig.5B

That is to say, when hammer 36 in caused to rotate counterclockwise, hook 64 of disconnector 60 temporarily engages hook 53 of hammer 36. As trigger 38 is released, disconnector 60 rotates allowing hammer 36 to begin to fall, until sear catch 52 of hammer 36 engages sear 56 of trigger 38. At that point, hammer 36 and trigger 38 are back to their set positions and the weapon may be fired. *Id.* This too is how a standard safety selector functions in semi-automatic mode. Ex.1003, ¶61.

c. FRT Mode

Lastly, Fig.6B below shows safety selector 110 in FRT mode. Narrow semi-circular portion 116 of safety selector 110 allows the tail portion of trigger member 38 to move on both sides of narrow portion 116, thus, allowing trigger 38 to rotate. However, narrow portion 116 contacts tail 66 of disconnector 60, thus preventing disconnector hook 64 from engaging hammer hook 53. Ex.1001, 8:54–65; Fig.6A. The manner in which the disconnector is disengaged is identical to that of a standard M-16 in auto mode. Ex.1003, ¶62.

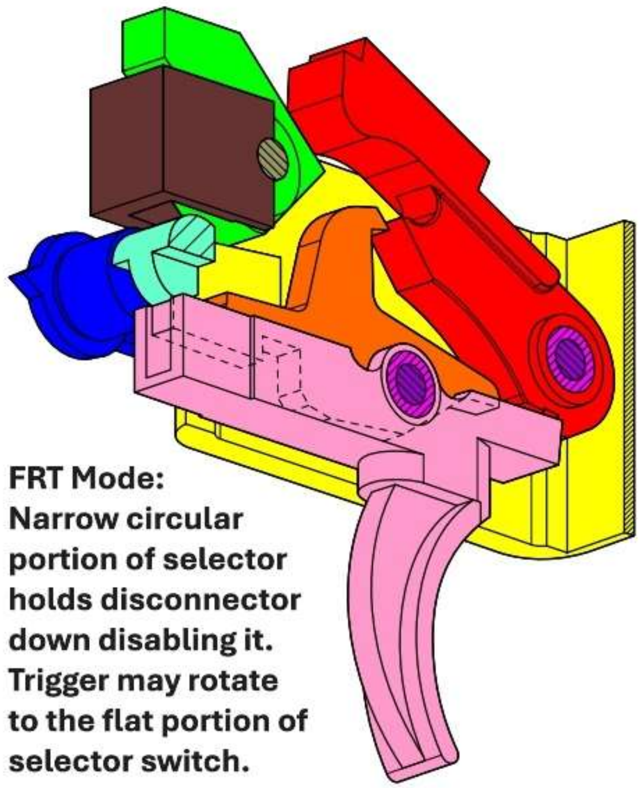


FIG. 6B

Blakely ’247, Fig.6B

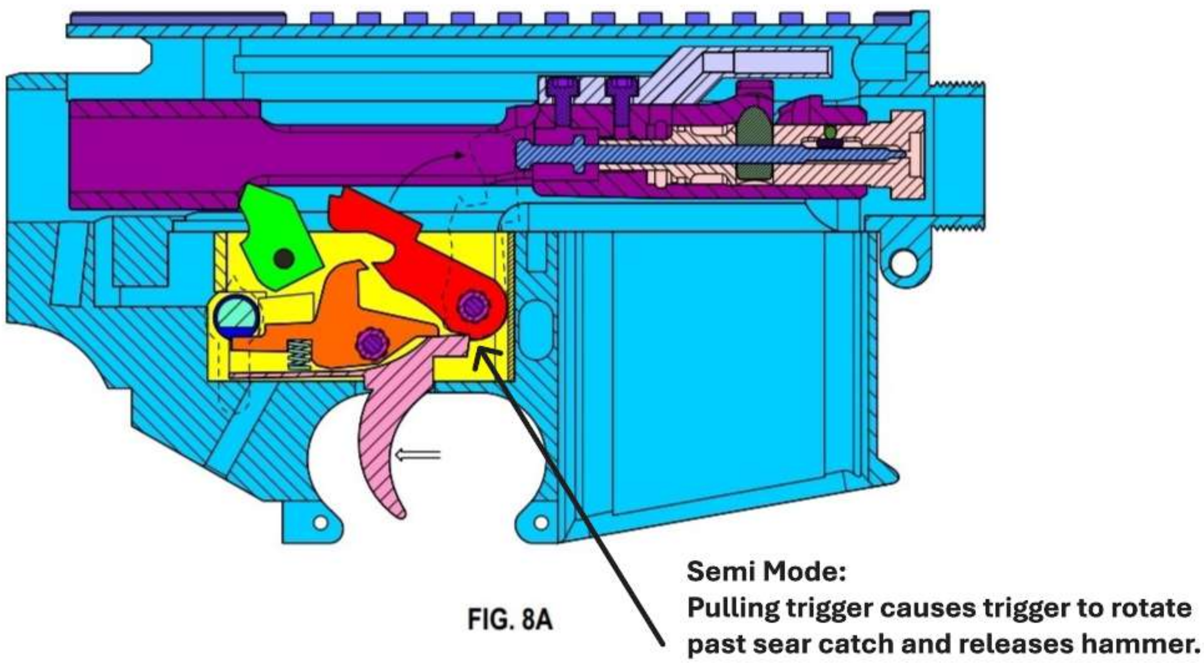
2. Blakely ’247 Operating Mounted in AR-15

a. Safe Mode

Blakley ’247 may be better understood in the context of a firearm (e.g., AR-15). Fig.7 shows the trigger mechanism mounted in an AR-15 and in safe mode. The figure is only a partial view of the AR-15. The barrel of the rifle would extend to the reader’s right, while the butt stock would extend to the left. Blakely ’247 safe mode is the same as a standard AR-15/M-16. Ex.1001, 8:43–48. Ex.1003, ¶63.

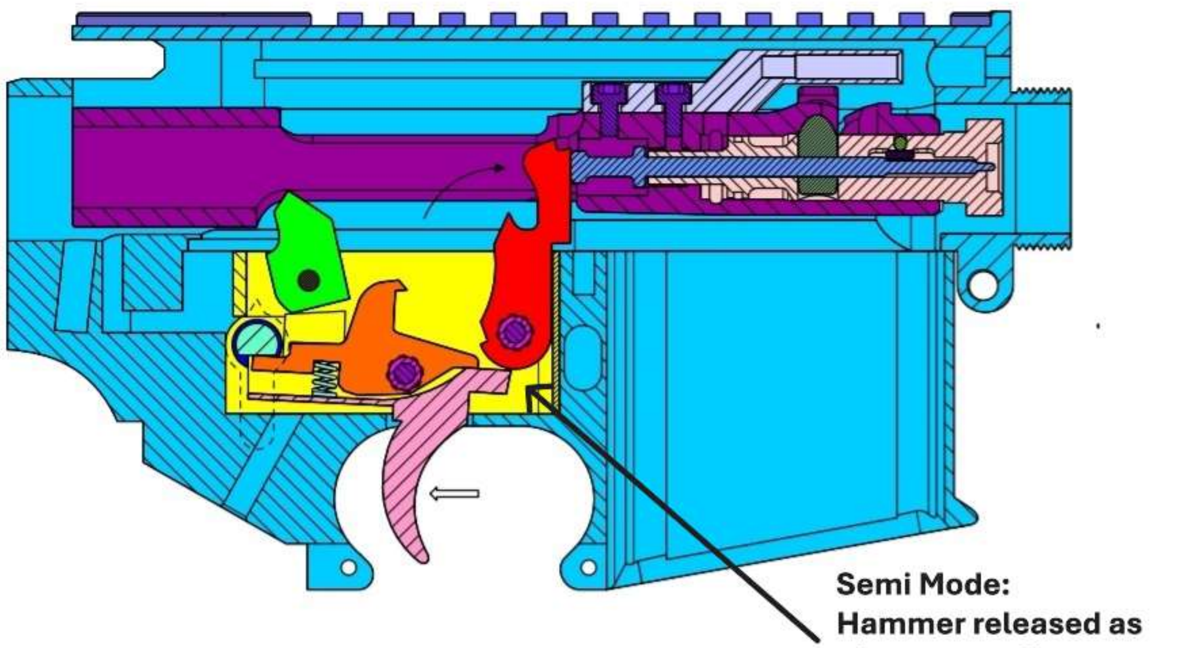
b. Semi-automatic Mode

Fig.8A below depicts safety selector 110 in semi-automatic mode. As trigger blade 54 of trigger member 38 is pulled rearward by the shooter's finger, trigger member 38 pivots on trigger pin 48. Eventually, sear 56 of trigger member 38 will rotate past sear catch 52 of hammer 36. Ex.1001, 8:66–9:6. Ex,1003, ¶64.



Blakely '247, Fig.8A

As shown below in Fig.8B, as hammer 36 is spring loaded it will rotate about hammer pin 36 and hammer head 50 will strike firing pin 99 impacting a primer on the chambered cartridge. Ex.1001, 9:6–10.



Blakely ’247, Fig.8B

The primer in turn ignites the gunpowder contained in the cartridge causing a small explosion which propels a bullet down the barrel of the rifle. [12] As the bullet nears the end of the barrel it will pass by a small hole (gas port) allowing some explosive gas to exit through a gas tube which begins at the gas port and the end of which is depicted in Fig.8C. This rearward gas enters into a gas key and causes

[12] These steps are inherent in the disclosure of Blakely ’247, and are also well known to a POSITA. Ex.1003, ¶65.

bolt carrier assembly 92 to be propelled backward toward the rifle butt. As bolt carrier assembly 92 moves back, it will eject the spent cartridge through an ejection port on the right side (from the shooter's perspective) of the rifle. Ex.1003, ¶65.

As shown in Fig.8C below, bolt carrier assembly 92 strikes head 50 of hammer 36 causing it to pivot counter-clockwise. Hook 53 on hammer 36 will engage with hook 64 of disconnector 60,[13] thus, locking hammer 36 rearward. As bolt carrier assembly 92 continues its rearward motion, it will strike first contact surface 82 of cam 72 causing the cam to rotate about cam pin 74 which in turn causes cam lobe 78 to interact with cam follower 58 to pivot trigger member 38 counter-clockwise. However, as hammer 36 is held back by disconnector 60, trigger member 38 will not reset. Ex.1001, 9:10—20. Ex.1003, ¶66.

[13] Disconnector 60 is spring-biased (not shown) such that it can rotate slightly counterclockwise when hammer hook 53 rubs past it. The spring then forces disconnector hook 64 into engagement with hammer hook 53.

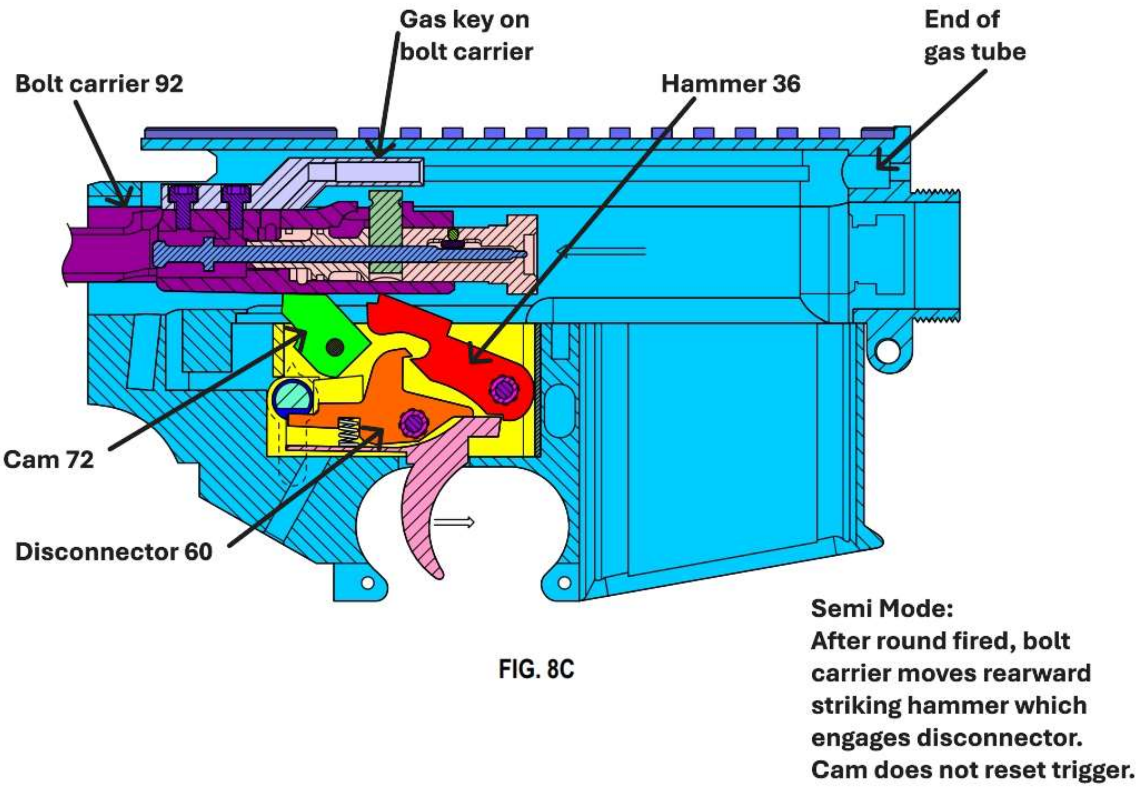


FIG. 8C

Blakely '247, Fig.8C

While not shown,[14] as bolt carrier assembly 92 continues rearward, it will strike buffer and spring contained in the stock of the rifle. The buffer assembly acts as a shock absorber, halting the rearward motion of bolt carrier assembly 92. The buffer spring then propels bolt carrier assembly 92 forward. As bolt carrier 92 moves forward, it will pick up the next round from the magazine. Ex.1003, ¶67.

[14] These steps are inherent in the disclosure of Blakely '247 and are also well known to a POSITA. Ex.1003, ¶67.

Bolt carrier continues moving forward and strikes second contact surface 84 of cam 72 causing cam 72 to rotate clockwise. At this point the shooter must let off trigger blade 54 and allow spring loaded trigger member 38 to rotate such that sear 56 engages with sear catch 52 of hammer 36, as hook 64 of disconnector 60 is no longer engaged with hammer hook 53. Ex.1001, 9:20—27; Fig.8D. Blakely '247 semi mode is the same as a standard AR-15/M-16. Ex.1003, ¶68.

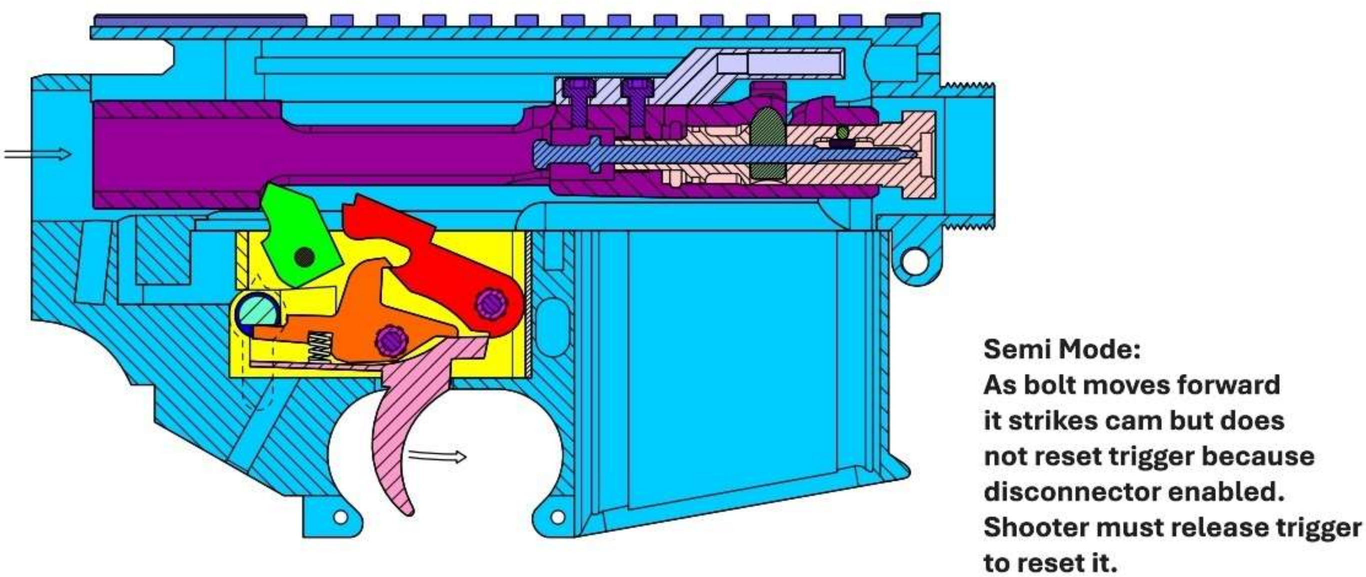
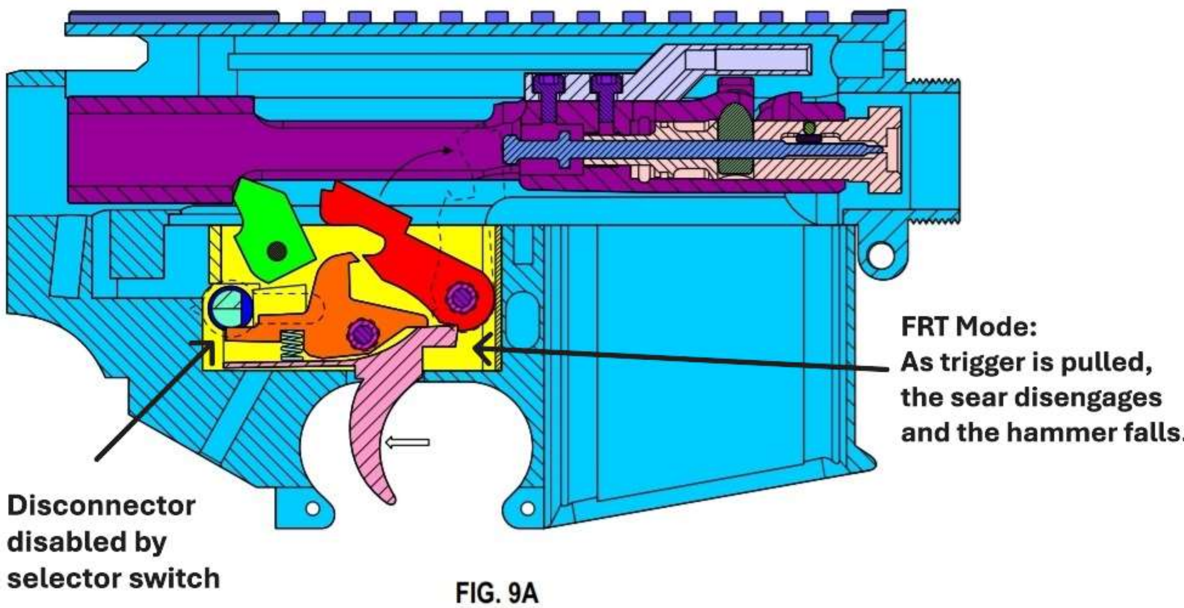


FIG. 8D

Blakely '247, Fig.8D

c. FRT Mode

Fig.9A below demonstrates the starting position while in forced reset trigger mode. As trigger blade 54 of trigger member 38 is pulled rearward, trigger member 38 pivots until the trigger sear 56 is no longer engaged with sear catch 52 of hammer 36. Ex.1001, 9:28–31.



Blakely '247, Fig.9A

At which time hammer 36 falls setting off a round, as shown in Fig.9B below.

Ex.1001, Fig.9B. Ex.1003, ¶69.

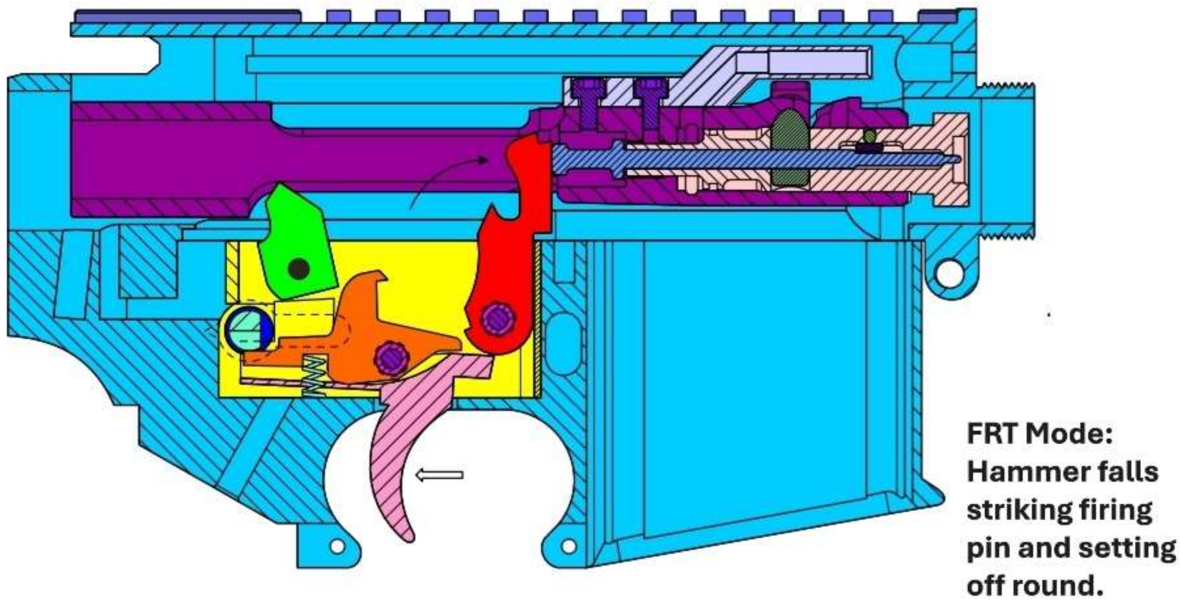
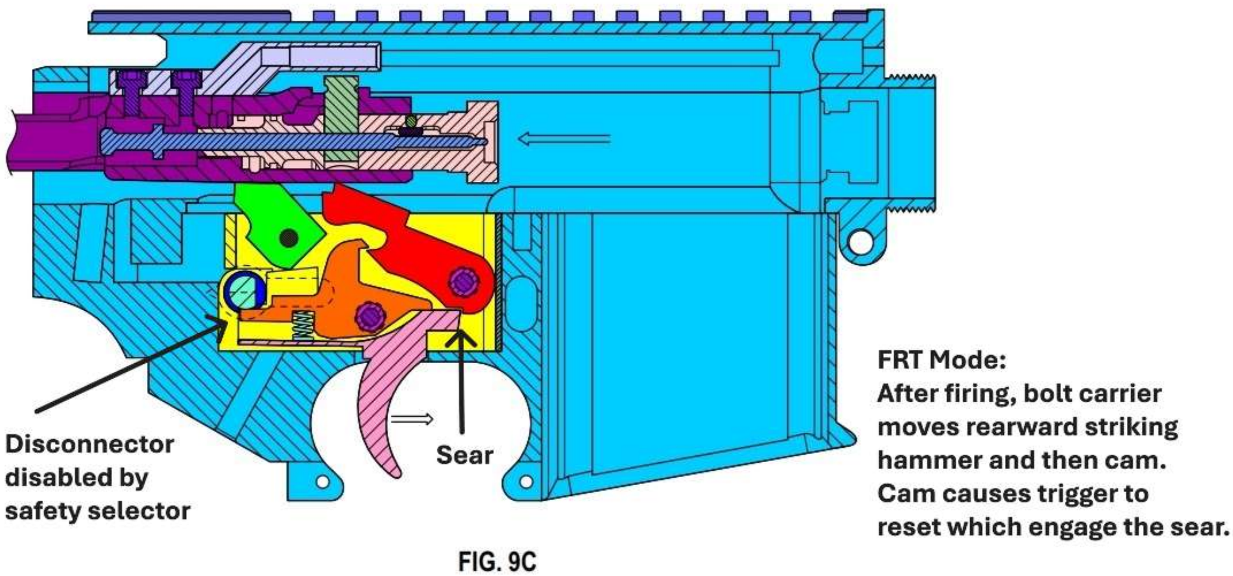


FIG. 9B

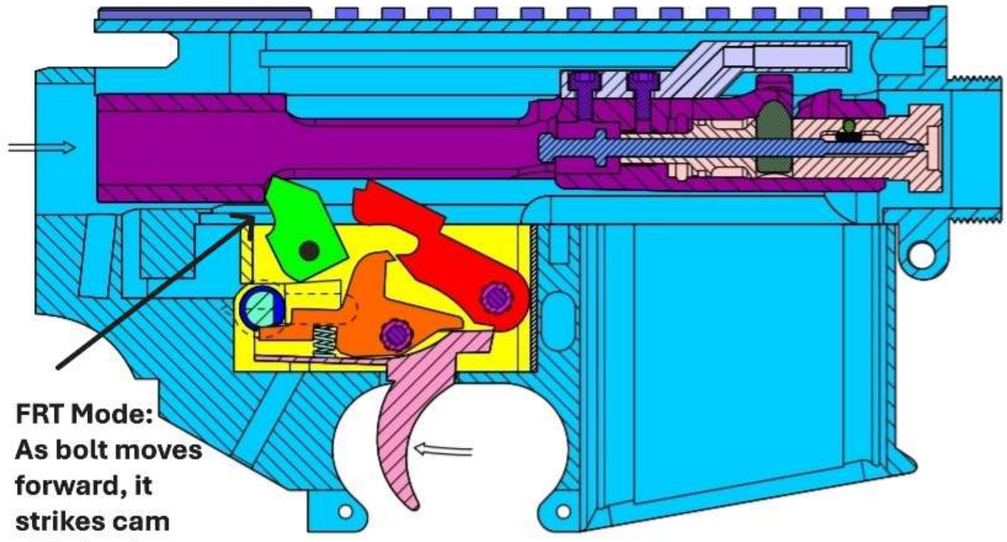
Blakely ’247, Fig.9B

As bolt carrier assembly 92 moves rearward, it strikes hammer head 50. Fig.9C, below. However, unlike the semi-automatic mode, disconnector 60 is not in position to engage hammer hook 53, as the narrow semi-circular portion 116 is in contact with tail 66 of disconnector 60.



Blakely '247, Fig.9C

As shown in Fig.9C, as bolt carrier 92 continues moving rearward, it contacts first surface 82 of cam 72 causing it to rotate. Cam lobe 78 strikes cam follower 58 of trigger member 38 forcing trigger to rotate back to the set position wherein sear 56 engages sear catch 52. Ex.1001, 9:31–60.



Blakely ’247, Fig.9D

Fig.9D shows that as bolt carrier assembly 92 moves forward it contacts second contact surface 84 of cam 72, allowing the trigger to be pulled. Thus, if the shooter applies a constant rearward pressure on trigger blade 54, the firearm will fire immediately after bolt carrier 92 returns to battery, closely simulating a fully-automatic rate of fire. Ex.1003, ¶70.

E. Prosecution History

Provisional application No. 63/374,941 was filed on September 8, 2022. Blakely ’247 was filed on May 20, 2023, and claims priority to the provisional application. For claims 1–13, Petitioner has assumed the priority date claimed by Blakely ’247 for the purposes of this IPR, but may challenge it in another forum. For claims 14–23, Petitioner has used the filing date of May 30, 2023, because new matter was added when Blakley ’247 was filed and claims 14–23 capture that new matter. These claims and new matter are directed at capturing a product, The Super Safety, which was on the market prior to the filing of Blakely ’247, however, applicant failed to inform the examiner of that highly material prior art. Ex.1003, ¶71.

Through the entirety of the provisional application, the cam is always described as “pivotably mounted” to “pivot between” a first and second position. Likewise, all the figures only show a pivotable cam. Ex.1003, ¶72.

As shown in the redline comparison of Blakely’s ’247 specification and that of his provisional application, when the ’247 specification was filed, new matter was added. Ex.1016. Specifically, 5:21–25 was added to have the cam “movably mounted” and “movable between” a first and second position. *Id.*, 10. Blakely made the same addition at 8:3. *Id.*, 16. Then, 8:12–14 was added to describe that cam 72 “can be slidably mounted to the housing.” *Id.*, 16. Unlike claims 1–13 which require the cam to be pivotable between a first and second position, claims 14–23 require only that the cam be “movable between a first” and second position. This difference in priority dates may be important to the Bingly prior art references. Although a subpoena would be required to definitively determine when the Bingly videos were publicly disclosed, the available evidence suggests that the videos likely qualify as prior art to all the claims. Ex.1003, ¶73.

The Examiner allowed the Blakely ’247 claims in his initial action. Ex.1002, 23. The Examiner found Blakley ’723 to be the closest prior art, as it discloses all of the elements of a FRT, however, it did not disclose a 3-position safety selector switch and consequently had no semi-automatic mode. Ex.1002, 23–25 (“Blakley [’723] does not show, however, a safety selector … to pivot between safe, standard semi-automatic, and forced reset semi-automatic positions.”) Applicant failed to disclose to Examiner that it was aware that Tommy Triggers had been selling an FRT with a 3-position safety selector switch nearly a year before Blakely’s ’247 priority date. Moreover, ABC, the assignee of the Blakely ’247 patent, had released a video of its FRT-E3 which is an FRT with a 3-position safety. Petitioner asserts that had Examiner known of this prior art, he would not have allowed the claims of Blakely ’247. Ex.1003, ¶75.

V. Level of Ordinary Skill in the Art

A POSITA would have an associate’s degree in gunsmithing or two years of experience working in the field of firearms or gunsmithing, and specifically would have a working understanding of the AR-15 and/or M-16. An individual with less technical experience but more education, such as an engineering degree, or some mix of some technical formal training and hands-on training, could also qualify. Ex.1003, ¶76.

VI. Claim Construction

All claim terms should be construed according to the *Phillips* standard. *Phillips v. AWH Corp*., 415 F.3d 1303 (Fed. Cir. 2005); 37 C.F.R. § 42.100. Petitioner submits that formal claim constructions are presently unnecessary in view of the substantial overlap between the prior art teachings applied in Petitioner's grounds for invalidity and the preferred embodiments of the '207 patent with the exception of "trigger member."[15]

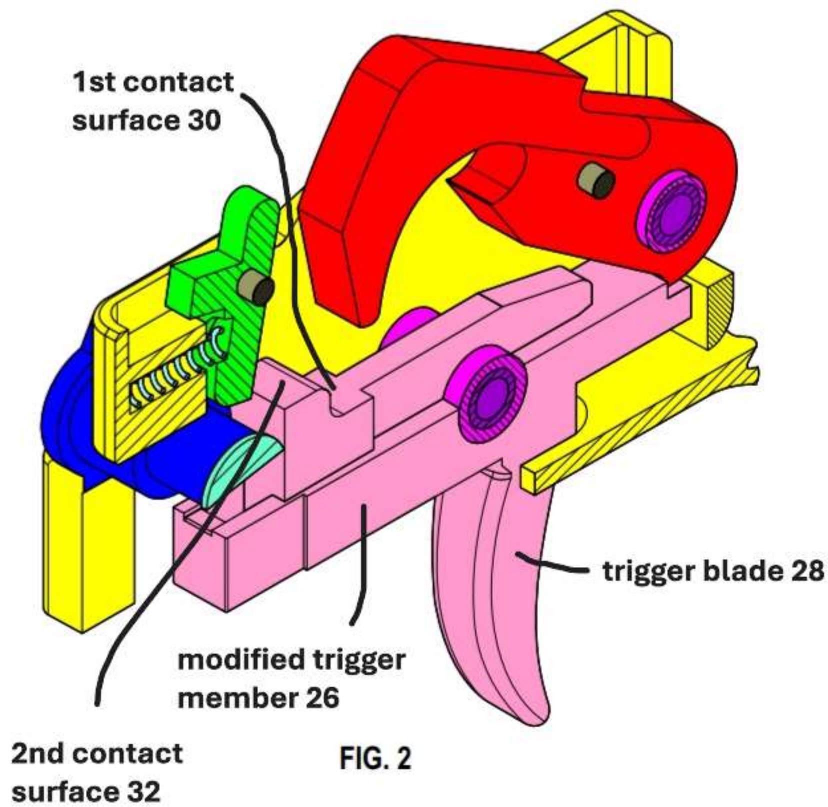
"[T]he specification 'is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.'" *In re Abbott Diabetes Care Inc*., 696 F.3d 1142, 1149 (Fed. Cir. 2012) (*quoting Phillips v. AWH Corp*., 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc)).

Blakely '247 only discloses one embodiment, and as shown in Fig.3, trigger member 38 is formed as one unitary piece. As will be discussed later in more

[15] Petitioner is not conceding that each claim satisfies all statutory requirements, nor waiving any arguments concerning claim scope or grounds that can only be raised in district court. Petitioner reserves its right to assert different claim construction positions in a different forum.

detail, prior art reference Blakely ’723 trigger member is comprised of two pieces: trigger 22 and trigger extender 90. The question is whether the term “trigger member” may be composed of more than one part. This question, however, is clearly answered by the specification. Ex.1003, ¶79.

Blakely ’247 incorporates by reference the entirety of U.S.P.N. 10,514,223, Ex.1015 (“Rounds ’223”). Ex.1001, 1:65–2:1. The trigger member in Rounds ’223 consists of two parts: trigger blade 28 and modified trigger module 26. The specification of Rounds ’223 (which forms part of Blakley’s ’247 specification), makes clear that the two pieces constitute the “trigger member” which the specification treats as synonymous with “trigger.” Ex.1003, ¶¶80–81.



Rounds '223 (Ex. 1015), Fig. 2

For example, Rounds '223 reads, as "bolt carrier is cycled, [it–sic] causes the trigger to be forcibly reset by contact between the hammer and ***a surface of the trigger member***. Once reset, movement of the trigger is blocked by a locking bar and cannot be pulled." Ex.1015, 2:39–43. As is evident from Fig.2 (above), the hammer contacts the first contact surface 30 ***of the trigger member 26***, making it clear that "trigger member 26," refers to both pieces. In fact, the second piece (called a "trigger extender" in Blakely '723) isn't given a name or reference numeral in Rounds ’223, as it is included as a part of “trigger member 26.” Also, “modified trigger member 26 … may ***include*** a trigger blade portion 28 … [which] is part of trigger member 26,” makes clear that “trigger member” includes both structures. *Id.*, 3:51–54; *see also* 4:1–7 (“trigger member 26 can ***include*** first and second upwardly extended rear ***contact surfaces 30, 32***.”); 5:35–40 (“contact surface 30 ***of the trigger member 26*** forces the trigger to pivot (arrows in FIG.5) toward and to its reset position.”). (***emphasis*** added throughout). Ex.1003, ¶82.

Therefore, a POSITA reading the specification of Blakely ’247 which incorporates Rounds ’223 would understand that “trigger member” as used in the claims can encompass a single unitary structure like the embodiment of Blakely ’247 or a two-piece structure like that in Rounds ’223 and prior art reference Blakely ’723. In both cases, the function of the additional trigger piece is to extend the trigger up to the cam, so the cam may reset the trigger. Ex.1003, ¶83.

VII. OVERVIEW OF THE PRIOR ART

A. Blakely ’723 (Ex.1009)

1. FRT Mode

Blakely ’723 teaches an FRT for a semi-automatic rifle (e.g., AR-15 as partially depicted in Fig.5, below). Ex.1009, 6:37–40; 8:27–34. It *appears* (discussed below) to teach a standard 2-position safety selector switch. *See e.g.*, Ex.1009, 3:3–9; Fig.1. Ex.1003, ¶85.

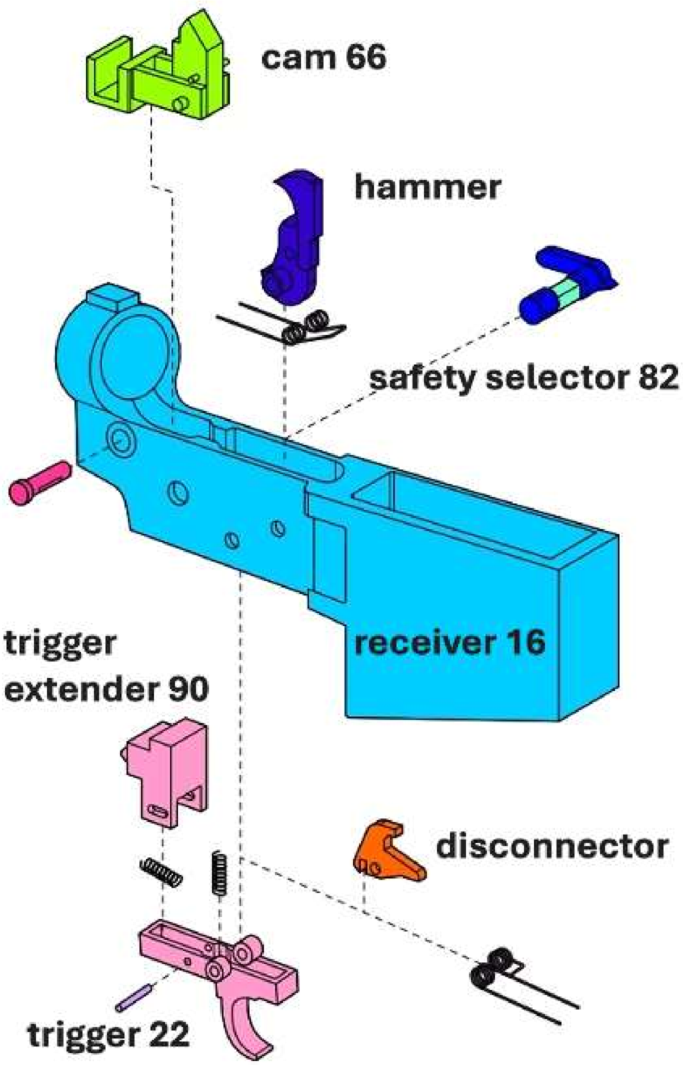
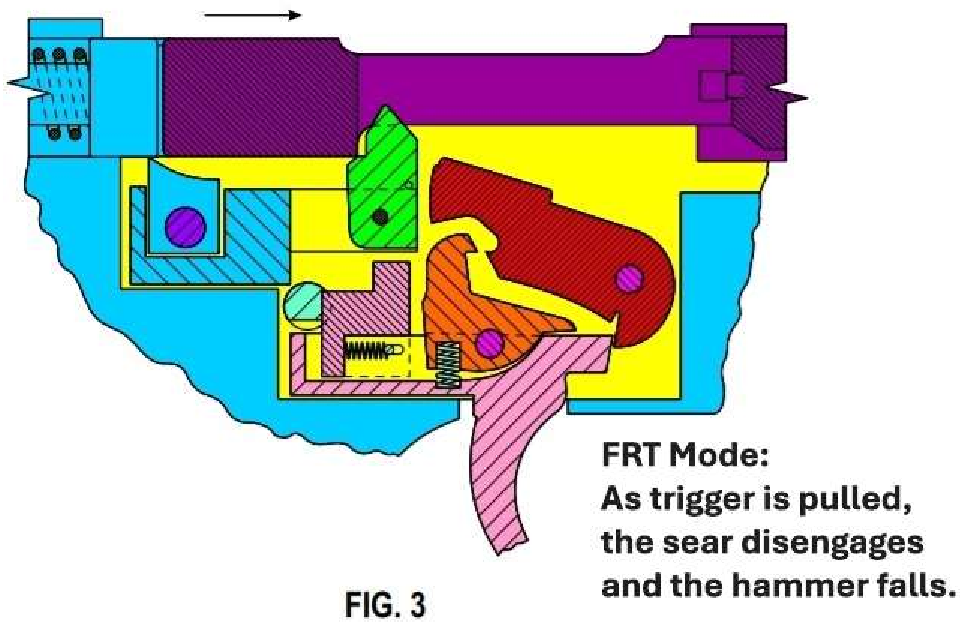


FIG. 5

Blakely '723, Fig.5

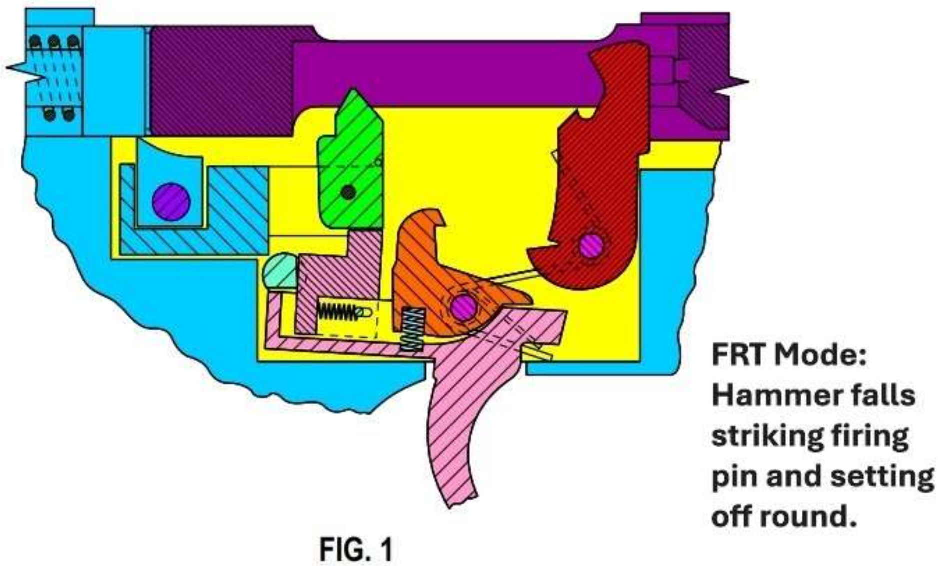
In Blakely '723, Fig.3 below, demonstrates the starting position while in forced reset trigger mode.[16] Ex.1003, ¶86.



Blakely '723, Fig.3

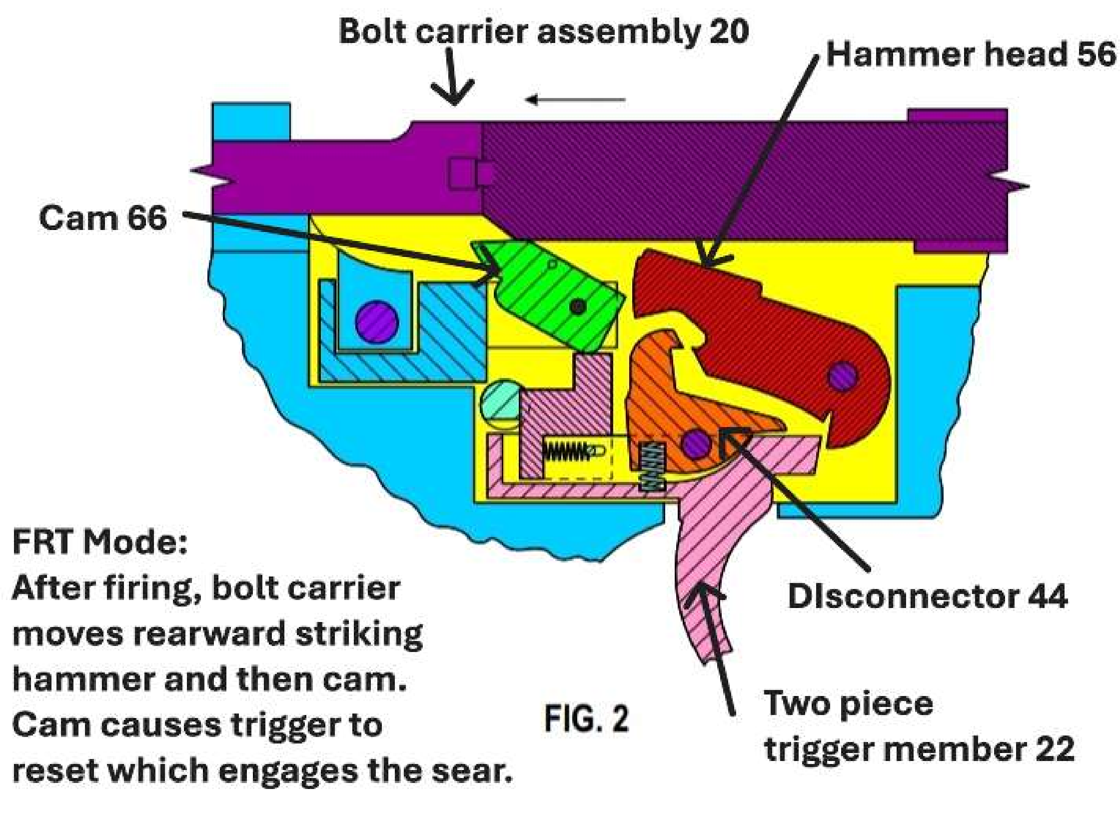
[16] Technically, Fig. 3 is a fraction of a second before the set position as the bolt is still moving forward and has not yet contacted the cam. However, it will suffice for illustrative purposes.

In Fig.1 below, as trigger blade 24 of trigger member 22 is pulled rearward, trigger member 22 pivots about trigger pin 46 until trigger sear 34 disengages from sear catch 44 of the hammer. At which time, the spring-loaded hammer falls setting off a round. Ex.1009, Fig.1. Ex.1003, ¶87.



Blakely ’723, Fig.1

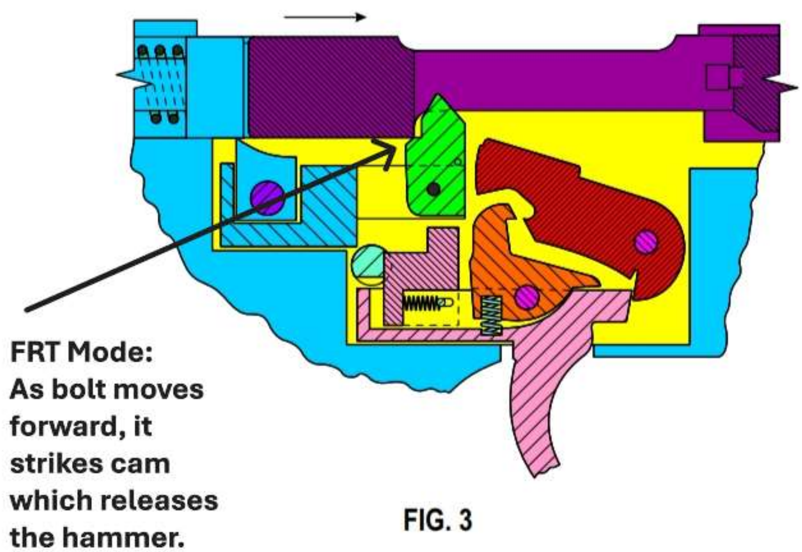
Fig.2 below shows as bolt carrier assembly 20 moves rearward, it strikes hammer head 56 causing the hammer to rotate rearward and engage disconnector 44. Ex.1009, 10:34–38. As bolt carrier assembly 20 continues moving rearward, it contacts the forward face of cam 66 causing it to rotate counterclockwise. Cam lobe 69 strikes the trigger extender 90 of trigger member 22 forcing trigger 22 to rotate back to the set position wherein sear 34 engages sear catch 44. Ex.1009, 10:38–47.



Blakely ’723, Fig.2

In this position, cam lobe 69 is in contact with the trigger extender and the top portion of cam 66 is in contact with bolt carrier 20 making it impossible for the shooter to pull the trigger. Ex.1009, 10:47–50. Ex.1003, ¶88.

In Fig.3, as bolt carrier assembly 20 reverses direction and moves forward, it contacts the rearward contact surface of cam 66. Ex.1009, 8:12–26; 10:58–65. In this position, the flat portion of the bottom of cam 66 provides a gap above trigger extender 90 of trigger 22, thus allowing trigger 22 to be pulled. Thus, if the shooter applies a constant rearward pressure on trigger blade 24, the firearm will fire immediately after bolt carrier 20 returns to battery, closely simulating a fully-automatic rate of fire. Ex.1009, 8:26–43; 10:64–11:5. Ex.1003, ¶89.



Blakely ’723, Fig.3

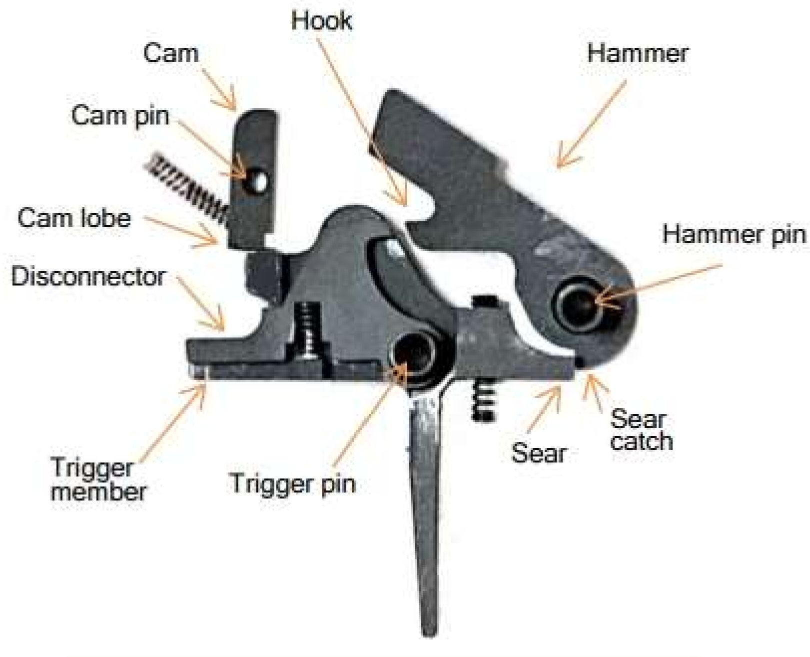
Blakley ’723 *appears* to have a 2-position safety selector switch (i.e., safe and FRT modes) and would not have a semi-automatic mode which is standard on AR 15’s and M-16’s. However, Ex.1009, 11:11–25, suggests that Blakely ’723 contemplated a three-position safety selector enabling semi-automatic mode. However, the figures and specification do not appear to show or discuss the specifics of such an embodiment. While 11:11–25 does not specifically describe what Blakely had in mind, it does provide motivation to add a 3-position selector switch. Ex.1003, ¶90.

B. Complaint (Ex.1008)

ABC filed a complaint against Tommy Triggers on February 21, 2022, which is a publicly available, printed publication which qualifies as prior art under §102(a).[17] At that time, ABC and its sister company, Rare Breed, had filed a number of patent infringement suits against the FRT industry and was also very vocal and public about its fight against the ATF over whether FRT’s were illegal machine guns. A POSITA would have known of ABC’s lawsuit against Tommy and could have easily downloaded the Complaint to learn of the inner workings of the Tommy product. Ex.1003, ¶91.

[17] The complaint was filed in the publicly accessible docket of the N.D. Ohio. *Rare Breed, et al. v. Strbac, et al.*, 1:22-cv-280 (Feb. 21, 2022), Dkt. 1. Ex.1008.

Complaint explains how a standard AR-15 trigger functions. Ex.1008, 5–7. It contrasts this to how an FRT works. Ex.1008, 8–9. Complaint also states ABC has "been developing a 'three-position' FRT which a safety selector switch can change the mode of operation between" safe, semi-automatic, and FRT modes. Ex.1008, 9, 12. Thus, providing a clear motivation to combine an FRT with a 3-position safety selector. Complaint contains photos of an FRT with a 3-position selector, the FRT-15-3MD, providing additional motivation for the combination. Ex.1008, 11. Complaint shows the inner workings of an FRT which may be used with a 3-position selector. Ex.1008, 12 (duplicated below). Complaint makes clear that the FRT-15-3MD is designed to be placed into the fire control pocket of an AR-15. Ex.1008, 16–17. The sear on the trigger member and the sear notch on the hammer are clearly seen. Ex.1008, 17. Complaint demonstrates the set and released positions of the hammer and trigger. Ex.1008, 17–18. The sear is clearly depicted and contains a hook for engaging a hook on the hammer. Ex.1008, 18. Complaint teaches a cam that pivots about an axis. Ex.1008, 19. Ex.1003, ¶92.



Ex.1008 at 12 (labels added).

Complaint also discloses that an owner of a Rare Breed FRT-15 (which came with a 2-position safety selector) can—by replacing the trigger, disconnector, and hammer—turn the FRT into one that will work with a 3-position safety selector ("The Ultimate Upgrade for the Rare Breed Trigger"). Ex.1008, 13.

C. Bingly Videos (Exs. 1005–1007)

1. Bingly videos constitute printed publications

The Federal Circuit has instructed that the "printed publication" provision of § 102(b) must be interpreted in light of its purpose "to prevent withdrawal by an inventor ... of that which was already in the possession of the public." *Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1380 (Fed. Cir. 2018) (citation omitted). *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981) (printed publication can be "in whatever form it may have been recorded"); *see also* IPR2018-00494, *MerchSource, LLC v. DODOCase VR, Inc.*, Paper No. 12, Institution Decision at 9, FN3 (PTAB Aug. 22, 2018) (instituting IPR review based on prior art YouTube video). A reference is publicly accessible "upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it." *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981). At this stage of the proceedings, Petitioner need only demonstrate a reasonable likelihood that it will be able to prove by a preponderance of the evidence that Bingly videos were publicly available and accessible prior to priority dates of September 8, 2022, and May 30, 2023.

The principal authentication rule, Rule 901(a), provides that: "To satisfy the requirement of authenticating or identifying an item of evidence, the proponent must produce evidence sufficient to support a finding that the item is what the proponent claims it is." The court makes the initial decision under Rule 104(a) whether the proponent has offered sufficient proof that a reasonable fact finder could find in favor of authenticity. If so, then, under Rule 104(b), the fact finder makes the ultimate determination as to whether the evidence is, in fact, what its proponent claims. "Importantly," as the Fourth Circuit has observed, "the burden to authenticate under Rule 901 is not high . . . . [A] district court's role is to serve as gatekeeper in assessing whether the proponent has offered a satisfactory foundation from which the [fact finder] could reasonably find that the evidence is authentic." "In performing its Rule 104 gate-keeping function, the trial court itself need not be persuaded that the proffered evidence is authentic. The preliminary question for the trial court to decide is simply whether the proponent of the evidence has supplied facts that are sufficient to support a reasonable [fact finder] determination that the evidence he has proffered is authentic." At that point, the issue is for the fact finder. Here, the threshold is qualitatively different in that the Board need only determine that the Petitioner (with the benefit of a subpoena to YouTube) is reasonably likely to obtain a declaration which would provide a reasonable fact finder sufficient evidence that the videos were publicly available as of the date posted on them.[18]

[18] It has been recognized, a YouTube video can be rendered self-authenticating by obtaining and proffering a Rule 902(11) or (12) certification from a Google custodian of records that the video was captured and maintained on the company's servers in the ordinary course of business at or near the time that users post them. *See*, *e.g., United States v. Hassan*, 742 F.3d 104, 132–33 (4th Cir. 2014).

Bingly posted three related videos on YouTube with posting dates of June 5, 2022 (Ex.1005), June 19, 2022 (Ex.1006), and August 1, 2022 (Ex.1007). From the Complaint (Ex.1008), we know that Tommy Triggers was selling its PP_FRT-15-3MR kits before January17, 2022 (the date of cease-and-desist letter). Ex.1008 at 4, ¶19. Bingly_2 (Ex.1006) is dated June 19, 2022—over three years ago. It has been viewed nearly 64,000 times, suggesting it was publicly available. The page also contains 100 posts and replies that are each marked as "3 years old." While YouTube does not display more precise dates, it nevertheless provides further evidence that the video was posted before the priority dates at issue. Tommy Triggers stopped selling its trigger in October 2022, when it settled its case with Rare Breed, and some of the comments that are "3 years old" discuss buying FRT's from Tommy Triggers' website. Also, Bingly has a channel with about 800 members, so it is unlikely he would have posted this video for private viewing. Lastly, the declaration of Mr. Price of Page Vault, states he was able to find copies of screen captures of the videos (Exs.1005–1007) on the Wayback Machine which were downloaded on August 13, 2022; July 5, 2022; and May 10, 2023, respectively. Exs. 18–23. Without subpoenaing YouTube, proving up the Bingly videos as publicly available, business records, more conclusive evidence is not available. However, the totality of the evidence is sufficient to show a reasonable likelihood that Petition will prove the videos were publicly available before the priority date(s) at issue.

A POSITA could locate these videos by using a search engine and looking for Tommy Trigger, Alamo 15, Rare Breed FRT,[19] FRT with 3-position selector, FRT/E3 or other similar searches. All three videos contain "Tommy Trigger" in the title; two contain "Alamo" of "Alamo 15;" and one also contains "Rare Breed FRT/E3 Safety Selector." A POSITA "exercising reasonable diligence" could have readily located the videos. Once one is located, it would be obvious to look at Bingly's other videos; in Bingly_2 he references Bingly_1. Petitioner located the videos within minutes by running such searches. As Mr. Malcolm testifies, it is common for a POSITA to look on-line and watch videos to learn how to make simple modifications to firearms. Ex.1003, ¶96.

Accordingly, the Bingly videos are printed publications and prior art to Blakely '247 under at least 35 U.S.C. §§ 102(a)(1), and thus eligible as prior art. *See* 35 U.S.C §311(b).

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[19] In 2022, the only FRT's on the market were Rare Breed, WOT, Alamo-15, and Tommy Triggers.

2. Bingly video disclosures

Bingly_3 demonstrates the installation of a Tommy Trigger for use with a 3-position selector.[20] Ex.1007 (Bingly_3). Bingly_2 demonstrates how a 3-position selector switch works in conjunction with an FRT. Ex.1006-PT1[21] (Bingly_2), 3:20 to Ex.1006-PT3, 2:12. Reader is encouraged to watch Ex.1006 at this time.

Bingly_2 provides a source for purchasing a 3-postion selector switch for use with an FRT, as well as showing a homemade one. Ex.1006-PT2, 0:33–1:45; Ex.1006-PT2, 3:48–Ex.1006-PT3, 2:12. He demonstrates two FRT's, a Rare Breed FRT-15 and a PBG Alamo-15 FRT, both having Tommy Triggers upgrade kits installed in them, so that they can be used with a 3-position selector. Ex.1006-PT1, 1:36–1:42. He explains how the FRT with the Tommy Trigger kit works. Ex.1006-PT1, 3:20–Ex.1006-PT2, 3:05. Specifically, he points out that there are three positions on the safety selector. The first position is safe mode in which a wide semi-circular portion contacts the trigger and disconnector[22] and does not allow them to rotate. Ex.1006-PT1, 4:54–5:08. The second mode is semi-automatic mode which provides a wide flat portion above the trigger and

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[20] The so called, "Ultimate Upgrade Kit," but in the video it's being installed on an Alamo-15 FRT, as opposed to the Rare Breed FRT-15.

[21] Video was divided into three parts to conform with 25 Mb filing limit.

[22] Bingly, like Stoner '555, refers to a "sear" which in the language of Blakely '247 is a "disconnector."

disconnector allowing them both to rotate and thus, function. Ex.1006-PT2, 0:00–0:16. The third mode is FRT mode where the selector has a narrow semi-circular portion on the right which pushes down on the disconnector disabling it, and a narrow flat portion on the left allowing the trigger to rotate. Ex.1006-PT2, 0:17–1:18. He sets out the basics of making your own 3-position safety selector from a 2-position safety selector which will work with an FRT. Ex.1006-PT, 3:48–Ex.1006-PT3, 2:00. Bingly_2 states: "it's really easy," "it's not complicated," "if I can do it, anyone can do it." Ex.1006-PT3, 3:52–4:00. Ex.1003, ¶97.

Bingly_1 demonstrates in more detail how to convert a standard 2-position selector switch into a 3-position selector switch for use with an FRT. Ex.1005. Bingly_1 states, "anyone can do this." Ex.1006, 3:19–3:34. Ex.1003, ¶98.

"PP_FRT-15-3MD" is being used to refer to Complaint (Ex.1008) and Bingly videos (Exs. 1005–1007) publications individually, as each discloses enough information to enable a POSITA to build the selector switch disclosed. To be clear, Petitioner does not rely upon the actual product, but rather the description of the product contained in the printed publications (i.e., Complaint and three videos). Ex.1003, ¶99.

The functioning of the 3-position safety selector switch disclosed in PP_FRT-15-3MD is identical to that of Blakely '247 described above. As the safety selectors of PP_FRT-15-3MD and Blakely ’247 in safe and semi modes is identical to a standard M16 selector, a POSITA would already know how they function in those modes. Ex.1003, ¶100.

3. Safe Mode

As can be ascertained from FRT-15-3MD, when the safety selector is set to safe mode, the wide semi-circular portion of the safety selector prevents the trigger from being pulled rearward to fire the weapon. Ex.1005 (Bingly_1), 0:00–2:09; Ex.1006–PT2 (Bingly_2), 0:35–0:39; Ex.1007 (Bingly3), 3:55–8:00; Ex.1008 (Complaint), 6–9. Specifically, the safety selector will be in contact with the tail portion of the trigger member, effectively locking the trigger in place. Ex.1003, ¶101.

4. Semi-automatic Mode

When the safety selector is in semi-automatic mode, the flat portion of the safety selector allows the trigger to be pulled, and the weapon fired. The flat portion will provide a space between the tail portion of the trigger, as well as tail of disconnector (both of which extend beyond the housing), thus, allowing both trigger and disconnector to function. That is to say, when the hammer is caused to rotate counterclockwise, the hook of the disconnector temporarily engages the hook of the hammer. As the trigger is released, the disconnector rotates allowing the hammer to begin to fall until the sear catch of the hammer engages the sear of the trigger. At that point, the hammer and the trigger are back to their set positions and the weapon may be fired. Ex.1005, 0:00–2:09; Ex.1006-PT1, 3:20 to Ex.1006-PT3, 3:38; Ex.1007, 3:55–8:00; Ex.1008, 11-13. Ex.1003, ¶102.

5. FRT Mode

Lastly, when the safety selector is in FRT mode, a narrow semi-circular portion of the safety selector allows the tail portion of the trigger member to rotate, thus allowing the trigger to be pulled. However, the narrow portion contacts the tail of the disconnector, which is sticking out of the housing, thus preventing the disconnector hook from engaging the hammer hook. Ex.1005, 0:00–2:09; Ex.1006-PT1, 3:20 to Ex.1006-PT3, 3:38; Ex.1007, 3:55–8:00; Ex.1008, 11-13. Ex.1003, ¶¶103–104.

A POSITA would only need to see the shape of 3-position selector switch to appreciate and be able to practice the invention. The safe and semi-automatic modes on the selector switch are created by a wide semi-circular portion and a flat portion, respectively. Ex.1005, 0:00–2:09; Ex.1006-PT1, 3:20 to Ex.1006-PT3, 3:38; Ex.1007, 3:55–8:00; Ex.1008, 11-13. A standard selector switch for an AR-15 or M-16 has the same two portions to serve the same two functions. Ex.1006-PT1, 4:54–5:08 (referred to as a “neutered safety” because it does not allow for FRT mode). The 3-position safety has one more portion which is of a narrow semi-circular shape on the right which engages the tail of disconnector, effectively disabling it when in FRT mode, and a narrow flat surface on the left which provides clearance for the trigger to rotate. *Id*. A POSITA, observing the geometries of the hammer, disconnector, trigger, and safety selector, would have readily understood that adding a narrow semi-circular portion to a standard 2-position safety selector would result in a 3-position selector switch for use with an FRT. *Id.* This is more obvious given it is essentially how an M-16 functions; in the auto mode the tail of the disconnector is held down by a narrow semi-circular portion of the safety selector. In the words of Blakely, "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 …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." Ex.1009 (Blakley '723) at 12:4–15. Stated succinctly, this ain't rocket science. Even without the PP_PP_FRT-15-3MR disclosures, a POSITA would have been able to build a three-position selector switch to work with Blakely '723 or any other FRT. Ex.1003, ¶105.

D. Rationale to Combine

It would have been obvious to a POSITA to combine Blakely '723 with the three-position safety selector switch disclosed in PP_FRT-15-3MR. Blakely '723 suggested such a combination. Ex.1009, 11:11–25. This would have resulted in a firearm capable of safe, semi, and FRT modes, thus, mimicking an M-16 which is the goal of an FRT. Shooters want a semi-automatic mode for improved accuracy. Also, some ranges restrict the rate of fire. Shooting only in FRT mode can raise safety concerns depending upon the shooting environment. In addition, ammunition cost associated with FRT rate of fire can be quite substantial. Always firing in FRT mode also increases wear on the firearm. It follows that for many reasons, shooters prefer to have the ability to select their rate of fire, as evidenced from the M-16. Ex.1003, ¶106.

Without question, a POSITA having the PP_FRT-15-3MR disclosure would have been able and motivated to combine it with Blakely ’723. PP_FRT-15-3MR teaches lengthening the tail of the disconnector such that it can be disabled by the safety selector switch, much like an M-16 and the original AR-15 disconnector.[23] To engage the disconnector, the safety switch needs a FRT position in which it has a narrow semi-circular portion that holds the disconnector down while allowing flat portions to allow the trigger to move. Ex.1003, ¶107.

[23] Blakely ’723, Fig. 5 shows an AR-15 trigger 22 which has a closed back. On the M-16 trigger the back is left open so the disconnector tail can extend under the safety selector switch such that it can be disabled in auto mode. A POSITA would understand you would need to use an M-16 style trigger when using an extended disconnector.

The disclosure of Blakely ’723 shows trigger 22 with groove 30 in the middle which is where disconnector 38 resides. Ex.1009 (Blakely ’723), Figs.4–5. Disconnector 38 is missing its tail portion, as compared to an M-16 disconnector. By lengthening the disconnector tail, it could be made to fall under the safety selector. The safety selector could be modified in a manner similar to that disclosed in PP_FRT-15-3MR, so it could disable the disconnector while allowing the trigger to rotate. A POSITA would be readily enabled to do this given the disclosures of Blakely ’723 and PP_FRT-15-3MR. This combination would be one of familiar elements according to known methods to do no more than yield predictable results. Ex.1003, ¶108.

PP_FRT-15-3MR teaches an FRT with a 3-position safety selector. However, the FRT cam functions only to keep the hammer from following the bolt when in FRT mode, it does not also function to reset the trigger. Rather the hammer strikes the top of the trigger causing it to reset. *See e.g.,* Ex.1008, 18. A POSITA would recognize, this has several disadvantages. First, it causes the hammer to wear prematurely. Second, the downward force on the trigger can be felt by the shooter, which is both unpleasant and distracting. Lastly, when the hammer is struck by the bolt carrier it pivots back, striking and resetting the trigger. The bolt then contacts and rotates the cam, so as to lock the hammer to the rear. The timing of this sequence must be precise, and is complicated by manufacturing tolerances across various AR-15's. Ex.1003, ¶109–110.

It would have been obvious to have the cam also reset the trigger as taught by Blakely '723. In distinguishing Blakely '723 over the prior art, applicant stated:

> Inskip, therefore, uses two distinct mechanisms to accomplish the two distinct tasks, moving the trigger forward, and holding it forward until the firearm is ready to again be fired.
>
> The fact that the two fundamental functions are performed independently, by two different apparatuses, is a critical weakness in Inskip. The tolerances and timing required to allow two independent apparatuses to cooperate to move and then hold the trigger forward presents significant design and manufacturing obstacles.

Ex.1014, 6. Ex.1003, ¶111.

Thus, a POSITA would have been motivated to combine the selector switch of PP_FRT-15-3MR with Blakely '723, as doing so would avoid issues of timing; hammer wear, and shooter discomfort associated with the FRT disclosed in PP_FRT-15-3MR. Modifying Blakely's FRT for use with the safety selector disclosed in PP_FRT-15-3MR would require routine experimentation in a predictable technology. Ex.1003, ¶112.

VIII. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Claims 1-23 are Obvious over Blakely ’723 in view of PP_FRT-15-3MR

1. Claims 1–3

[1pre] “A firearm trigger mechanism comprising:”

Blakely ’723 pertains to a trigger mechanism for use in a semi-automatic firearm. Ex.1009 (Blakely ’723), 1:56–64. Specifically, it describes a FRT for use in an AR-15. Ex.1009, 3:46–50; 6:33-36; Fig.5.

[1a] “a hammer having a sear catch and a hook for engaging a disconnector and adapted to be mounted in a fire control mechanism pocket of a receiver to pivot on a transverse hammer pivot axis between set and released positions, said hammer adapted to be pivoted rearward by rearward movement of a bolt carrier,”

As shown in Fig.5, hammer has sear catch 52 and hook 54 for engaging disconnector 38. The hammer is adapted to be (and depicted as) mounted in a fire control pocket of an AR-15 receiver 16. *See e.g.*, Ex.1009, Fig.5. When bolt carrier 20 moves rearward, it strikes face 56 of the hammer which then pivots about pin 58 which necessarily means it pivots about a transverse (i.e., side-to-side) axis between set and released positions. Ex.1009, 2:23–26; 8:1–11. The hammer pivots between set (Fig.2) and released (Fig.1) positions. Ex.1003, ¶114.

[1b] "a trigger member having a sear and adapted to be mounted in the fire control mechanism pocket to pivot on a transverse trigger member pivot axis between set and released positions,"

Blakely '723 teaches trigger member 22/90 with sear 34. The "trigger member" is comprised of trigger 22 and trigger extender 90. Said trigger member 22/90 is adapted to be (and depicted as) mounted in a fire control pocket. Trigger member 22/90 pivots on pin 46, and thus, pivots on a transverse axis between set and released positions. Ex.1009, 5:13–27; 5:35–38; 7:9–11; Figs. 1 and 2. Ex.1003, ¶115.

[1c] "wherein said sear and sear catch are in engagement in said set positions of said hammer and trigger member and are out of engagement in said released positions of said hammer and trigger member,"

Trigger sear 34 engages hammer sear 52 in set position. As trigger member 22/90 is pulled rearward, it pivots about trigger pin 46 until sear engagement is lost, at which point the hammer spring will rotate hammer into released position where hammer face 56 strikes the firing pin. Ex.1009, 5:44–50; 7:9–11; Fig.3A. Ex.1003, ¶116.

[1d] "a disconnector having a hook for engaging said hammer and adapted to be mounted in the fire control mechanism pocket to pivot on said transverse trigger member pivot axis,"

Blakley '723 teaches disconnector 38 having hook 54 for engaging the hammer. Disconnector pivots on trigger pin 36, and thus, transverse trigger member pivot axis. Disconnector 38 is adapted to be (and depicted as) mounted in the fire control pocket via trigger pin 46. Ex.1009, Figs.1, 2, and 5. Ex.1003, ¶117.

[1e] "a cam having a cam lobe and adapted to be mounted in the fire control pocket to pivot on a transverse pivot axis, said cam being pivotable between a first position at which said cam lobe does not force said trigger member towards said set position and a second position at which said cam lobe does force said trigger member towards said set position, and"

Cam 66 has cam lobe 69 and is to be mounted in fire control pocket using the take down, as seen in Fig.5. Cam 66 pivots on pin 74, and thus, a transverse pivot axis, between a first position (Fig.3A) in which it does not force a trigger reset and a second position (Fig.2) in which it does. Ex.1003, ¶118.

[1f] "a safety selector adapted to be mounted in the fire control mechanism pocket to pivot between safe, standard semi-automatic, and forced reset semi-automatic positions,"

Blakely '723 does not clearly teach a 3-position safety selector, however, PP_FRT-15-3MR does.[24] The safety selector disclosed in FRT-3-MR, pivots between safe, semi-automatic, and FRT positions. Ex.1003, ¶119.

It would have been obvious to a POSITA to combine the 3-position safety selector of PP_FRT-15-3MR with the FRT of Blakely '723. Having a 3-position selector dates back to the original M-16 which had safe, semi-automatic, and fully-automatic modes. As an FRT aims to simulate fully-automatic fire, it would have

[24] .*See* discussion above re FRT-15-3MR beginning at 18.

been desirable for a shooter to have the option of selecting semi-automatic mode for instances needing more accuracy, not wasting ammunition, or shooting in an environment where shooting at a high rate of speed would be unsafe or forbidden. This combination would be one of familiar elements according to known methods to do no more than yield predictable results. Both Blakley ’723 and PP_FRT-15-3MR teach FRT’s for use with an AR-15 rifle, and are thus, interrelated teachings. Modifying Blakely’s FRT for use with the safety selector disclosed in PP_FRT-15-3MR would require routine experimentation in a predictable technology. This is especially true given PP_FRT-15-3MR teaches lengthening the tail of the disconnector such that it can be disabled by the safety selector when set to FRT mode. Ex.1003, ¶120.

[1g] “whereupon in said standard semi-automatic position, rearward movement of the bolt carrier causes rearward pivoting of said hammer and pivoting of said cam from said first position to said second position such that said cam lobe forces said trigger member towards said set position but prior to reaching said set position said disconnector hook catches said hammer hook, and thereafter forward movement of the bolt carrier causes said cam to pivot to said first position, at which time a user must manually release said trigger member to free said hammer from said disconnector to permit said hammer and trigger member to pivot to said set positions so that the user can pull said trigger member to fire the firearm, and”

Blakely ’723 does not clearly teach the standard semi-automatic mode, however, as discussed above, PP_FRT-15-3MR does. It would have been obvious to a POSITA to add the semi-automatic mode of PP_FRT-15-3MR to the FRT mode of Blakely ’723 for the reasons stated above. Ex.1003, ¶121.

It is well-known to a POSITA and inherent in PP_FRT-15-3MR that in semi-automatic mode, after a round is fired, the bolt carrier moves rearward, striking the hammer and causing it to pivot back and latch on the disconnector hook. As the bolt carrier continues rearward, it strikes the cam, which is rotated rearward, however, because the disconnector is engaged, the trigger cannot reset. As the bolt carrier reverses direction and moves forward it again strikes the cam resetting it back to its original position. The bolt carrier moves into battery. The shooter must release the trigger to free the hammer from the disconnector, but before the hammer can fall, it resets itself when the hammer sear catch mates with the sear on the trigger. Ex.1003, ¶¶122–123.

[1h] “whereupon in said forced reset semi-automatic position, rearward movement of the bolt carrier causes rearward pivoting of said hammer and pivoting of said cam from said first position to said second position such that said cam lobe forces said trigger member to said set position, said safety selector preventing said disconnector hook from catching said hammer hook, and thereafter forward movement of the bolt carrier causes said cam to pivot to said first position, at which time the user can pull said trigger member to fire the firearm without manually releasing said trigger member.”

In FRT mode, Blakely ’723 teaches, after the trigger is pulled (Fig.1), bolt carrier 20 moves rearward striking face 56 of the hammer causing it to pivot rearward (Fig.2). The disconnector catches the hammer. As bolt carrier 20 continues rearward it strikes the forward face of cam 66 causing it to pivot from a first position (shown in Fig.1) to a second position (shown in Fig.2). As cam 66 rotates, cam lobe 69 pushes down on trigger extender 90 causing trigger member 22/90 to reset. Ex.1009, 8:12–19. Ex.1003, ¶124.

Once bolt carrier 20 reverses directions and moves forward, it strikes the rearward surface of cam 66 causing it to pivot back to its first position (Fig.3A), at which time the user can pull the trigger. As cam 66 forced the trigger to reset, the user need not manually release the trigger. Ex.1009, 8:20–26. Ex.1003, ¶125.

Thus, Blakely ’723 does not disclose “safety selector preventing said disconnector hook from catching said hammer hook.” For reasons that are unclear, but likely related to the ATF, Blakely includes a disconnector which appears to serve no function. Almost immediately after the disconnector engages the hammer, the bolt strikes the cam which resets the trigger. So, the disconnector serves no apparent function, as Blakely ’723 does not have a semi-automatic mode. However, it would have been obvious to a POSITA to combine Blakely ’723 with the safety selector taught by PP_FRT-15-3MR. Doing so would allow the shooter to choose between FRT and semi-automatic mode. This combination would have been obvious given the disclosures of PP_FRT-15-3MR all teach a 3-position safety selector for use with an FRT. PP_FRT-15-3MR teaches that the safety selector, when set in FRT mode, disables the disconnector while allowing the trigger to rotate and reset automatically via the cam. Ex.1003, ¶¶126–127.

[2] "The trigger mechanism of claim 1, wherein said safety selector has a protuberance thereon which, when said safety selector is in said forced reset semi-automatic position, contacts said disconnector preventing said disconnector hook from catching said hammer hook."

PP_FRT-15-3MR teaches a safety selector with a protuberance (i.e., a narrow semi-circular area) which in FRT prevents the disconnect from catching the hammer hook. Ex.1003, ¶128.

[3] "The trigger mechanism of claim 1 further including a spring which biases said trigger member towards said set position."

Blakely '723 discloses a trigger member 22/90 which is biased by a spring. Ex.1009, Fig.1. Ex.1003, ¶129.

2. Claims 4–8

[4pre] *See* [1pre].

[4a] "a housing adapted to be installed in a fire control mechanism pocket of a receiver and having a first pair of transversely aligned openings for receiving a hammer pin, a second pair of transversely aligned openings for receiving a trigger pin, and a third pair of transversely aligned openings for receiving a cam pin,"

While Blakely '723 does not explicitly teach this limitation, it was well known in the industry that an AR-15 trigger can either be mounted directly into the fire control pocket, or it can be placed into a housing which is then installed into the fire control pocket. Placing the components into a housing makes it easier for a novice to install on the firearm. Ex.1003, ¶131.

PP_FRT-15-3MR discloses a housing adapted to be installed into an AR-15 receiver with two standard pins (i.e., one passing through the hammer and the other through the trigger and disconnector. *See e.g.,* Ex.1007. It would have been obvious to combine the housing disclosed in PP_FRT-15-3MR with Blakely ’723, as it is well known in the industry—and to a POSITA—that such housings simplify the installation of a trigger mechanism. Ex.1003, ¶132.

[4b] "a hammer having a sear catch and a hook for engaging a disconnector and mounted in said housing to pivot on a said hammer pin between set and released positions, said hammer adapted to be pivoted rearward by rearward movement of a bolt carrier,"

Blakley ’247 teaches the hammer, but it is not mounted in a housing. *See* [1a]. However, PP_FRT-15-3MR teaches a housing. *See* [4a]. Ex.1003, ¶133.

[4c] "a trigger member having a sear and mounted in said housing to pivot on a transverse trigger member pivot pin between set and released positions,"

Blakley ’247 teaches the trigger member, but it is not mounted in a housing. *See* [1b]. However, PP_FRT-15-3MR teaches a housing. *See* [4a]. Ex.1003, ¶134.

[4d] *See* [1c].

[4e] "a disconnector having hook for engaging said hammer and mounted in said housing to pivot on said trigger member pin,"

Blakley '247 teaches the disconnector, but it is not mounted in a housing. *See* [1d]. However, PP_FRT-15-3MR teaches a disconnector mounted in a housing. *See* [4a]. Ex.1003, ¶136.

[4f] "a cam having a cam lobe and mounted in said housing to pivot on said cam pin, said cam being pivotable between a first position at which said cam lobe does not force said trigger member towards said set position and a second position at which said cam lobe does force said trigger member towards said set position, and"

Blakley '247 teaches the cam, but it is not mounted in a housing. *See* [13]. However, PP_FRT-15-3MR teaches a cam mounted in a housing. *See* [4a]. Ex.1003, ¶137.

[4g] *See* [1f].

[4h] *See* [1g].

[4i] *See* [1h].

[5] *See* [2].

[6] "The trigger mechanism of claim 4, wherein said first and second pairs of transversely aligned opening in said housing are adapted to be aligned with first and second pairs of transversely aligned assembly pin opening in the fire control mechanism pocket."

Blakely '247 does not teach a housing, but PP_FRT-15-3MR does. *See* [4a] at 75. The disclosure of PP_FRT-15-3MR teaches a housing adapted to mounted to an AR-15 fire control pocket by placing two pins through the holes of the AT-15 receiver and the aligned holes in the housing. Ex.1008, 16, 17. Ex.1003,¶142.

[7] *See* [3].

[8] "The trigger mechanism of claim 7 wherein said spring is a torsion spring."

Blakely '723 discloses a trigger member 22/90 which is biased by a torsion spring. Ex.1009, Fig.1. Ex.1003, ¶144.

3. Claims 9–13

[9pre] *See* [1pre].

[9a] "a receiver having a fire control mechanism pocket therein,"

Blakely '247 teaches an AR-15 receiver with a fire control mechanism pocket. Ex.1009, Fig.5. Ex.1003, ¶146.

[9b] "a reciprocating bolt carrier,"

Blakely '247 teaches a reciprocating bolt carrier 20. Ex.1009, Figs.1–3, 2A-2C. Ex.1003, ¶147.

[9c] *See* [1a].

[9d] *See* [1b].

[9e] *See* [1c].

[9f] "a disconnector having a hook for engaging said hammer and mounted in said fire control mechanism pocket to pivot on said transverse trigger member pivot axis,"

See [1d].

[9g] "a cam having a cam lobe and mounted in said fire control pocket to pivot on a transverse cam pivot axis, said cam being pivotable between a first position at which said cam lobe does not force said trigger member towards said set position and a second position at which said cam lobe does force said trigger member towards said set position, and"

See [1e].

[9h] "a safety selector mounted in said fire control mechanism pocket to pivot between safe, standard semi-automatic, and forced reset semi-automatic positions,"

See [1f].

[9i] *See* [1g].

[9j] *See* [1h]

[10pre] *See* [1pre].

[10a] "a housing having a first pair of transversely aligned openings with a hammer pin therethrough and a second pair of transverse aligned openings with a trigger member pin therethrough,"

See [4a].

[10b] "said hammer mounted on said hammer pin, said trigger member and disconnector mounted on said trigger member pin."

See [4b].

[11pre] *See* [1pre].

[11a] "said receiver having a first pair of transversely aligned assembly pin openings and a second pair of transversely aligned assembly pin openings,"

See [6].

[11b] "said housing first pair of openings coaxial with said receiver first pair of openings and said housing second pair of openings coaxial with said receiver second pair of openings,"

See [6].

[11c] "a first assembly pin passing through said receiver first pair of openings and through said housing first pair of openings, and"

See [6].

[11d] "a second assembly pin passing through said receiver second pair of openings and through said housing second pair of openings."

See [6].

[12] "The firearm of claim 10 further comprising a spring which biases said trigger member towards said set position."

See [3].

[13] *See* [8].

4. Claim 14

[14pre] *See* [1pre].

[14a] *See* [1a].

[14b] *See* [1b].

[14c] *See* [1c].

[14d] *See* [1d].

[14e] "a cam having a cam lobe and adapted to movably mounted in the fire control mechanism pocket, said cam being movable between a first position at which said cam lobe does not force said trigger member towards said set position and a second position at which said cam lobe does force said trigger member towards said set position, and"

See [1e].

[14f] *See* [1f].

[14g] "whereupon in said standard semi-automatic position, rearward movement of the bolt carrier causes rearward pivoting of said hammer and movement of said cam from said first position to said second position such that said cam lobe forces said trigger member to said set position, but prior to reaching said set position said disconnector hook catches said hammer hook, and thereafter forward movement of the bolt carrier causes said cam to move to said first position, at which time a user manually release said trigger member to free said hammer from said disconnector to permit said hammer and trigger member to pivot to said set positions so that the user can pull said trigger member to fire the firearm, and"

See [1g].

[14h] *See* [1h].

5. Claims 15–19

[15pre] *See* [1pre].

[15a] *See* [1a].

[15b] *See* [1b].

[15c] "wherein said sear and sear catch are in engagement in said set positions of said hammer and trigger member and are out of engagement in said released positions of said hammer and trigger member, a hook for engaging said hammer and adapted to be mounted in the fire control mechanism pocket to pivot on said transverse disconnector pivot axis, and"

See [1c] and [1d].

[15d] "a cam having a cam lobe and adapted to movably mounted in the fire control mechanism pocket, said cam being movable between a first position and a second position in said second position said cam lobe forces said trigger member towards said set position,"

See [1e].

[15e] "whereupon in a standard semi-automatic mode, said cam is in said first position, rearward movement of the bolt carrier causes rearward pivoting of said hammer such that said disconnector hook catches said hammer hook, and thereafter the bolt carrier moves forward into battery, at which time a user must manually release said trigger member to free said hammer from said disconnector to permit said hammer and trigger member to pivot to said set positions so that the user can pull said trigger member to fire the firearm, and"

See [1g].

[15f] "whereupon in a forced reset semi-automatic mode, said cam is in said second position, rearward movement of the bolt carrier causes rearward pivoting of said hammer such that said disconnector hook is prevented from catching said hammer hook, and thereafter the bolt carrier moves forward into battery, at which time the user can pull said trigger member to fire the firearm."

See [1h].

[16pre] *See* [1pre].

[16a] "a housing having a first pair of transversely aligned openings with a hammer pin therethrough and a second pair of f transversely aligned openings with a trigger member pin."

See [4a].

[16b] "said hammer mounted on said hammer pin, said trigger member and disconnector mounted on said trigger member pin."

Blakely '247 teaches a hammer mounted on hammer pin 58. Ex.1008, Fig.1. Blakley '247 discloses the trigger 22 and disconnector 38 being mounted with a trigger pin. *Id.* Ex.1003, ¶184.

[17] "The trigger mechanism of claim 15, further comprising a spring which biases said trigger member towards said set position."

See [3].

[18] *See* [8].

[19] "The trigger mechanism of claim 15, wherein the trigger member pivot axis and disconnector pivot axis are coaxial."

See [16b].

6. Claims 20–23

[20pre] *See* [1pre].

[20a] *See* [1a].

[20b] *See* [1b].

[20c] *See* [1c].

[20d] "a [sic-said] disconnector having a hook for engaging said hammer and adapted to mounted in the fire control mechanism pocket to pivot on said a transverse disconnector pivot axis,"

See [1d].

[20e] "a cam having a cam lobe and adapted to movably mounted in the fire control mechanism pocket, said cam being movable between a first position at which said cam lobe does not force said trigger member into said set position and a second position at which said cam lobe does force said trigger member into said set position,"

See [1e].

[20f] "a safety selector adapted to be movably mounted in the fire control mechanism pocket to move between safe, standard semi- automatic, and forced reset semi-automatic positions,"

See [1f].

[20g] "whereupon in said standard semi-automatic position, said cam is in said first position, rearward movement of the bolt carrier causes rearward pivoting of said hammer such that said disconnector hook catches said hammer hook, and thereafter the bolt carrier moves forward into battery, at which time a user must manually release said trigger member to free said hammer from said disconnector to permit said hammer and trigger member to pivot to said set positions so that the user can pull said trigger member to fire the firearm, and"

See [1g].

[20h] "whereupon in a forced reset semi-automatic mode, said cam is in said second position, rearward movement of the bolt carrier causes rearward pivoting of said hammer such that said disconnector hook is prevented from catching said hammer hook, and, thereafter the bolt carrier moves forward into battery, at which time the user can pull said trigger member to fire the firearm."

See [1h].

[21] "The trigger mechanism of claim 20, wherein said cam is not a part of said safety selector."

Blakely '247 teaches cam 66 is not part of safety selector 82. Ex.1008, Fig.5.

Ex.1003, ¶197.

[22] "The trigger mechanism of claim 20, wherein said safety selector moves between safe, standard semi-automatic, and forced reset semi-automatic positions by rotation."

See [1f].

[23] "The trigger mechanism of claim 20, wherein the trigger member pivot axis and disconnector pivot axis are coaxial."

Blakely '723 teaches trigger member 22 and disconnector 38 are mounted using trigger pin 46. Ex.1008, Fig.1. As such, the trigger pivot axis and the disconnector pivot axis are coaxial. Ex.1003, ¶199.

IX. DISCRETIONARY DENIAL

A. General Plastics

Discretionary denial under *General Plastic* is not appropriate, as this is the first petition filed against Blakley '247.

B. Advanced Bionics

The Board should not exercise its discretion to deny institution under § 325(d) under *Advanced Bionics*. While Blakely '723 was considered by the Examiner, the PP_FRT-15-3MR disclosures were not. The attorney, Glenn Bellamy, had a duty to disclose the products underlying the PP_FRT-15-3MR disclosures (i.e., Tommy Triggers kit). Mr. Bellamy was ABC's litigation counsel against Tommy Triggers and prosecuted Blakely '247. The Examiner allowed the Blakely '247 claims in his initial action. Ex.1002, 23. The Examiner found Blakley '723 to be the closest prior art, as it disclosed all of the elements claimed in Blakely '247, except it did not disclose a 3-position safety selector switch. *Id.*, 23–25 ("Blakley ['723] does not show, however, a safety selector … to pivot between safe, standard semi-automatic, and forced reset semi-automatic positions.") The Examiner was unaware that Tommy Triggers had been selling an FRT with a 3-position safety selector switch nearly a year before Blakely's '247 priority date. Petitioner asserts had Examiner known of this prior art or the related PP_FRT-15-3MR disclosure, he would not have allowed the claims of Blakely '247.

C. Fintiv

The six parallel litigations in various district courts are all at preliminary stages. All the cases were filed in the month of June 2025. Answers have been recently filed in a few cases, discovery has not commenced, nor has claim construction begun. Based on statistical data from USCourts.gov, the average time to trial from the filing of a civil action is 22.6 months to 33.3 months.[25] In all of these cases, ABC IP is asserting the Blakely '247 patent is infringed. While answers have not been filed, it is highly likely that Defendants will assert invalidity as one of their defenses. Petitioner is not a party to any of the litigations, however, should it be sued by ABC, it will enter a *Sotera* stipulation.

[25] Available data from December and June 2023, provided 24.4 month to trial in N.D. Ohio; 29.1 months in W.D. Texas; 33.3 months in S.D. Miss.; 26.7 months in S.D. Texas; and 22.6 months in W.D. Okl. Data was not available for E.D. Idaho. https://www.uscourts.gov/data-news/reports/statistical-reports/statistical-tables-federal-judiciary/statistical-tables-federal-judiciary-june-2023.

Pursuant to the Office's Interim Process Concerning Institution published March 26, 2025, Petitioner reserves the right to address in further briefing any discretionary denial issues raised by ABC IP.

X. MANDATORY NOTICES UNDER 37 C.F.R § 42.8

A. Real Party-in-Interest (37 C.F.R. § 42.8(b)(1)

The real party-in-interest is Petitioner, Atrius Development Group Corp.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

1. Judicial Matters

As of the filing date of this Petition, to the Petitioner's knowledge, the Blakely '247 is involved in the following cases:

ABC IP, et al. v. 80 Mills, et al., 1:25-CV-1262 (N.D. Ohio)
ABC IP, et al. v. DNT, et al., 4:25-cv-00298 (E.D. Idaho)
ABC IP, et al. v. Harrison Gunworks, et al., 4:25-cv-00299 (E.D. Idaho)
ABC IP, et al. v. Hanes Tactical, et al., 3:25-cv-00201 (W.D. Tex.–El Paso Div.)
ABC IP, et al. v. Kline, 3:25-cv-454 (S.D. Miss.–Northern Div.)
ABC IP, et al. v. Nguyen, 4:25-CV-2961 (S.D. Tex.–Houston)
ABC IP, et al. v. Z3 Productions, et al., 5:25-cv-00695 (W.D. Okl.)

2. Administrative Matters

As of the filing date of this Petition, to the Petitioner's knowledge, Blakely '247 has not been the subject of any post-grant or *inter partes* reviews, either instituted or not instituted.

3. Related Applications

As of the filing date of this Petition, to the Petitioner's knowledge, applications related Blakely '247 currently pending before the Office are: 18/761,606 which claims priority to the same provisional application, 63/374,941, as the Blakely '247 patent.

C. Lead Counsel and Backup Counsel (37 C.F.R. § 42.8(b)(3))

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D. Notice of Service Information (37 C.F.R. § 42.8(b)(4))

Please direct all correspondence to lead counsel at the above address. Petitioner consents to electronic service at the email address above.

XI. CONCLUSION

For the reasons set forth above, Petitioner has established a reasonable likelihood that at least one of the Challenged Claims of Blakley ’247 is unpatentable and requests the Board institute *inter partes* review and cancel the Challenged Claims as unpatentable.

Respectfully submitted,
FLOYD IP
BY: /Adam V. Floyd/
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Parker, TX 75002

Dated: August 29, 2025

Certification of Service on Patent Owner

Pursuant to 37 C.F.R. §§ 42.6(e), 42.8(b)(4) and 42.105, the undersigned certifies that on the 29th of August, 2025, a complete and entire copy of this Petition for Inter Partes Review of U.S. Patent No. 12,038,247 and all supporting exhibits were served via Federal Express, postage prepaid, and by email to Patent Owner by serving the correspondence address of record for Blakely '247:

Glenn Bellamy
Wood Hernon & Evans
600 Vine Street, Suite 2800
Cincinnati, Ohio 45202

Mr. Bellamy is also counsel of record for the Patent Owner in the litigations identified above.

BY: /Ashley F. Cheung/

Ashley F. Cheung
PARALEGAL FOR PETITIONER

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24 et seq., the undersigned certifies that this document complies with the type-volume limitations. This document contains 13,694 words as calculated by the "Word Count" feature of Microsoft Word, the word processing program used to create it.

Dated: August 29, 2025

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