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Piper

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[54] **MULTI-BARRELED RAPID FIRE BB GUN**

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[51] **Int. Cl.**[7] **F41B 11/06**; F41B 11/02

[52] **U.S. Cl.** **124/59**; 124/72; 124/82

[58] **Field of Search** 124/59, 72, 82

[56] **References Cited**

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4,083,349	4/1978	Clifford	124/72
4,108,272	8/1978	Paitson et al.	181/120
4,137,893	2/1979	Beauchamp	124/72
5,054,464	10/1991	Young	124/72
5,282,455	2/1994	Adamson et al.	124/59
5,596,978	1/1997	Johnson	124/72
5,699,781	12/1997	Johnson et al.	124/72 X

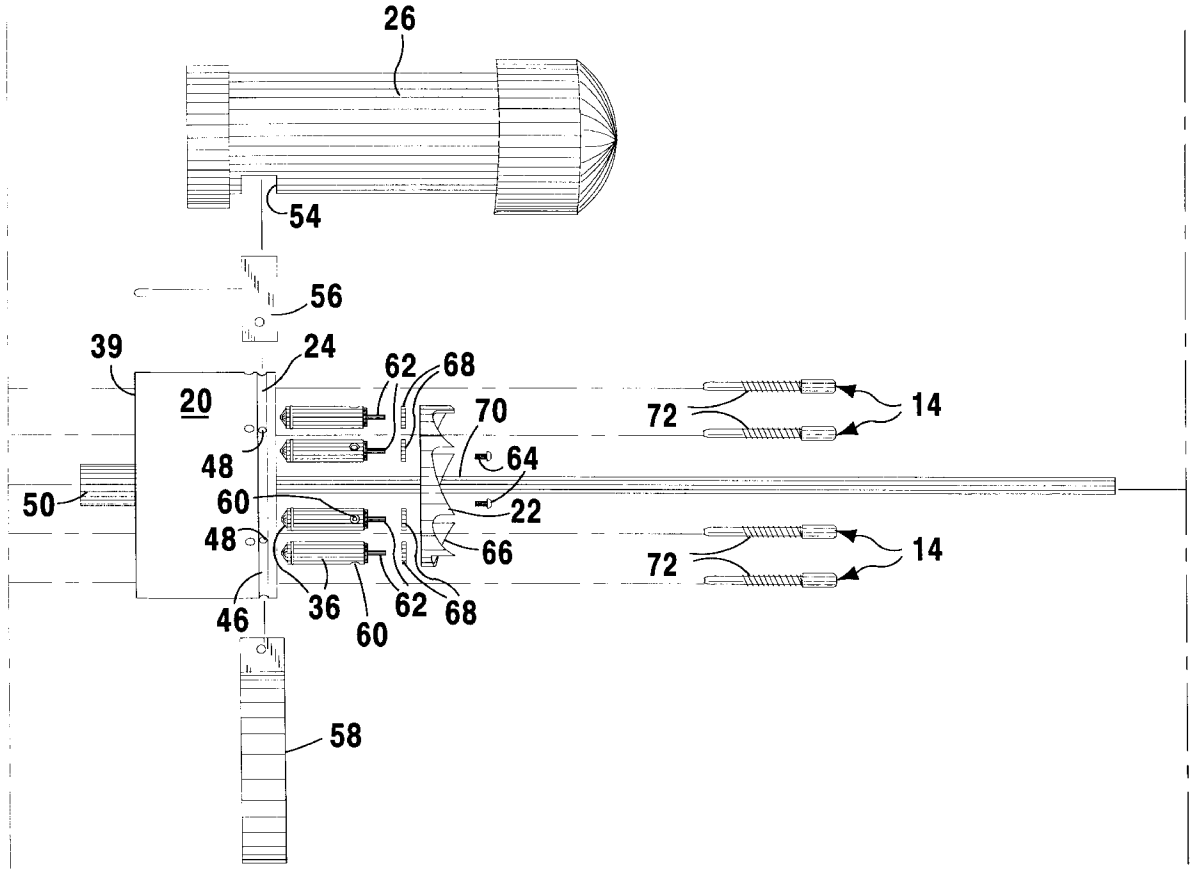
Primary Examiner—Robert P. Swiatek

Attorney, Agent, or Firm—Michael I. Kroll

[57] **ABSTRACT**

A multi-barreled rapid fire gun and method of use for firing a plurality of projectiles contained within a container releasably connected to the gun. The gun includes at least one barrel for receiving the projectiles from the supply. A supply of gas is connected to the at least one barrel and a device for providing gas from the supply to the at least one barrel is connected therebetween. A gas regulator is provided for regulating a pressure of the gas supplied to the at least one barrel wherein activation of the device for providing causes the gas to be supplied to tie at least one barrel to be received at a desired pressure causing the projectile to be ejected from the at least one barrel, a velocity at which the projectile is ejected and a distance at which the projectile travels being dependent upon the pressure at which the gas is provided to the at least one barrel. The multi-barreled rapid fire gun may include a plurality of barrels and a rotational motor for rotating the plurality of barrels wherein each barrel receives a projectile to be ejected therefrom from the supply of projectiles upon each revolution. The barrels are fed the projectiles through a feedway extending around the barrel housing from which the plurality of barrels extend. The projectiles are drawn into each barrel by a bolt having a magnetic tip for attracting the projectiles which is caused to extend into the barrel prior to ejection of the projectile.

17 Claims, 9 Drawing Sheets



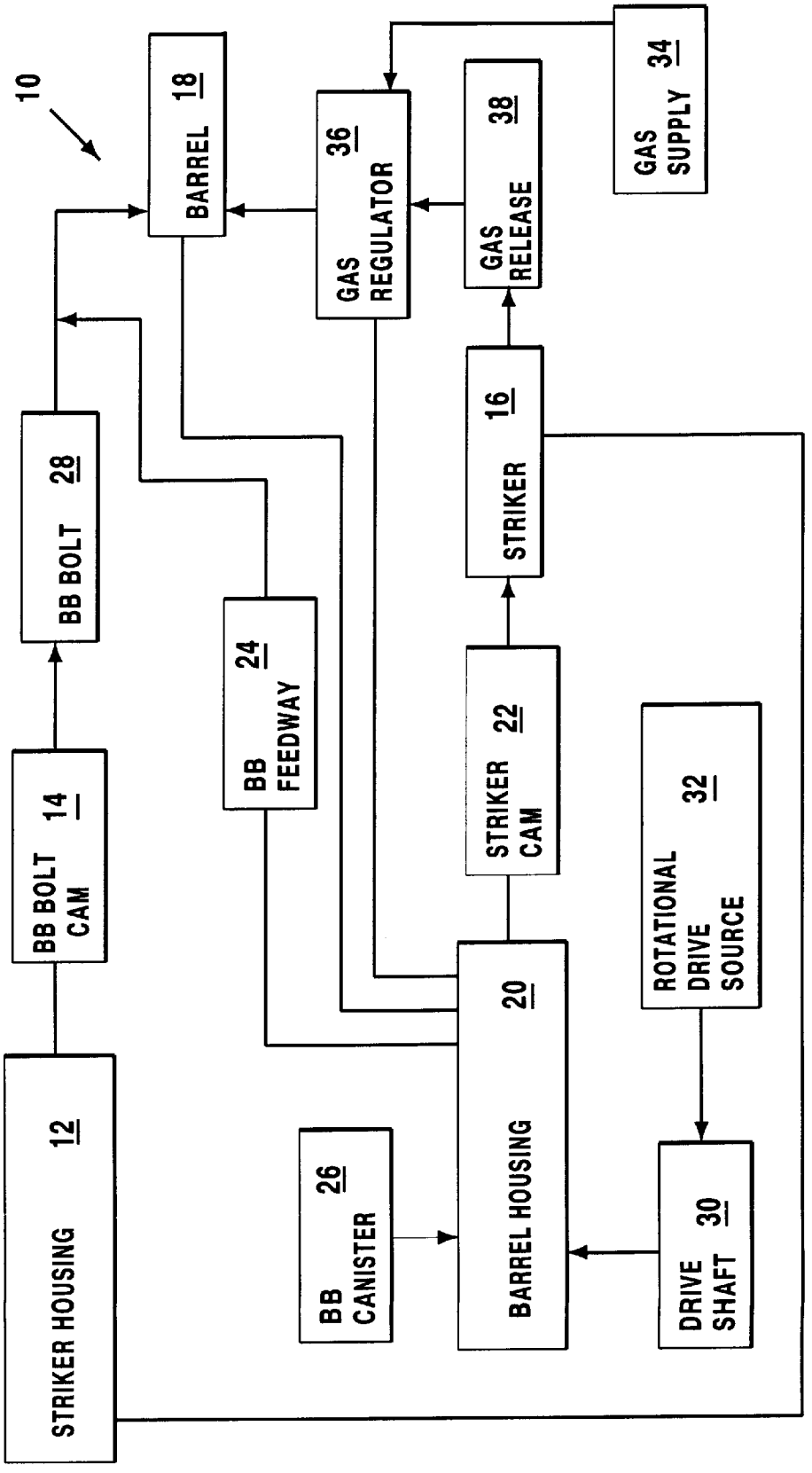

10
BARREL 18
GAS REGULATOR 36
GAS RELEASE 38
GAS SUPPLY 34
BB BOLT 28
BB FEEDWAY 24
STRIKER 16
BB BOLT CAM 14
STRIKER CAM 22
ROTATIONAL DRIVE SOURCE 32
STRIKER HOUSING 12
BB CANISTER 26
BARREL HOUSING 20
DRIVE SHAFT 30

FIG 1

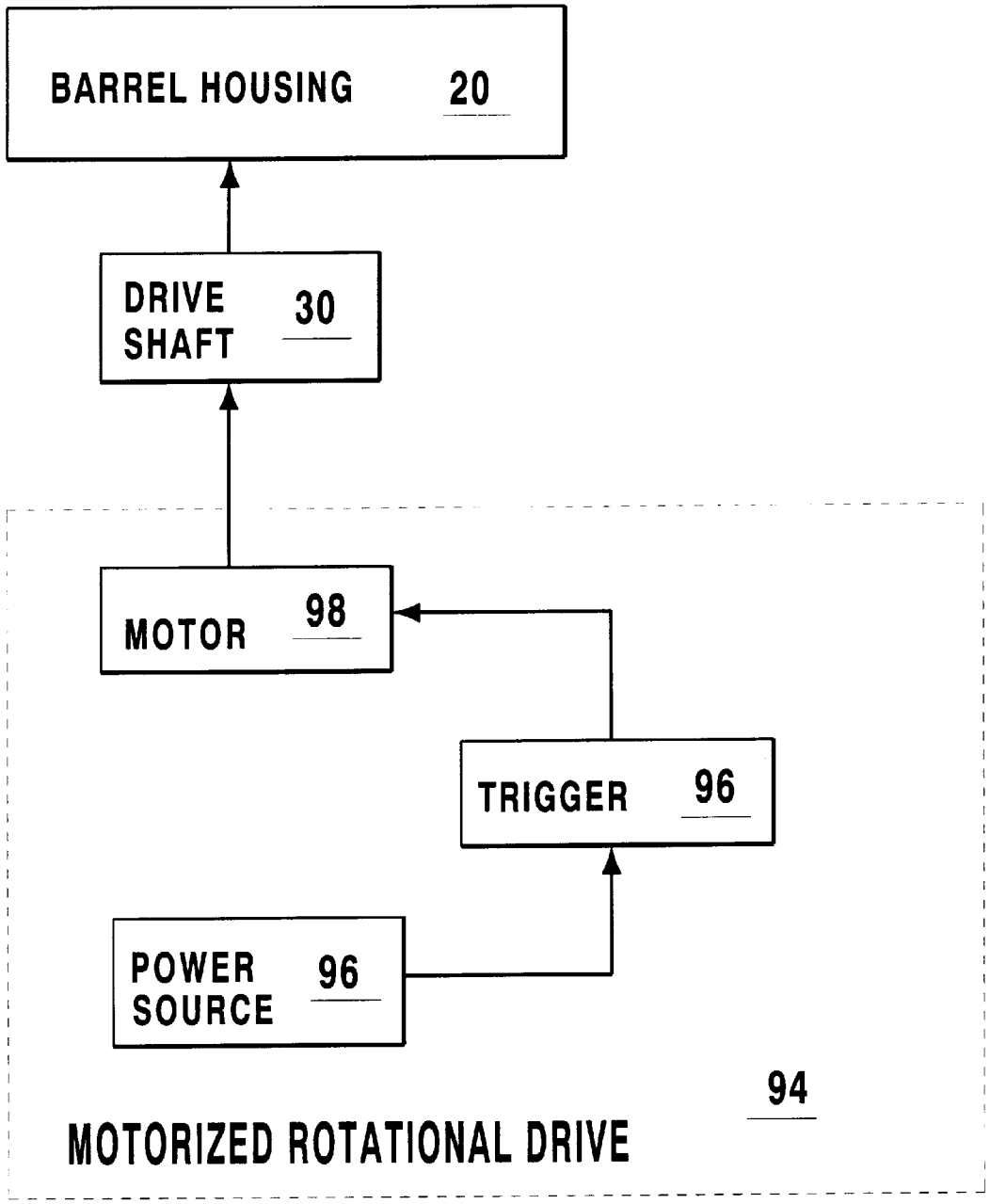

BARREL HOUSING 20
DRIVE SHAFT 30
MOTOR 98
TRIGGER 96
POWER SOURCE 96
94
MOTORIZED ROTATIONAL DRIVE

FIG 2

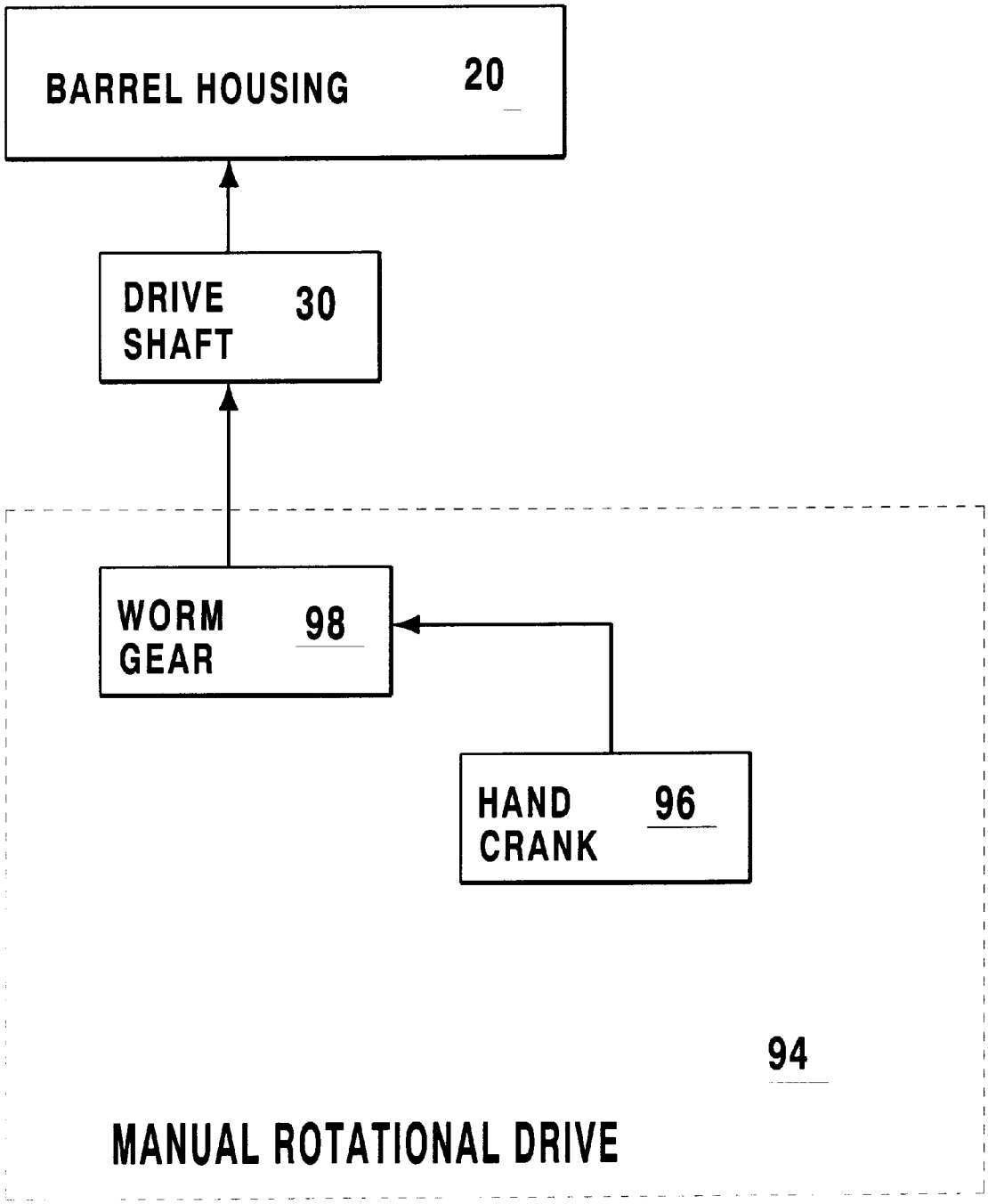

BARREL HOUSING 20
DRIVE SHAFT 30
WORM GEAR 98
HAND CRANK 96
94
MANUAL ROTATIONAL DRIVE

FIG 3

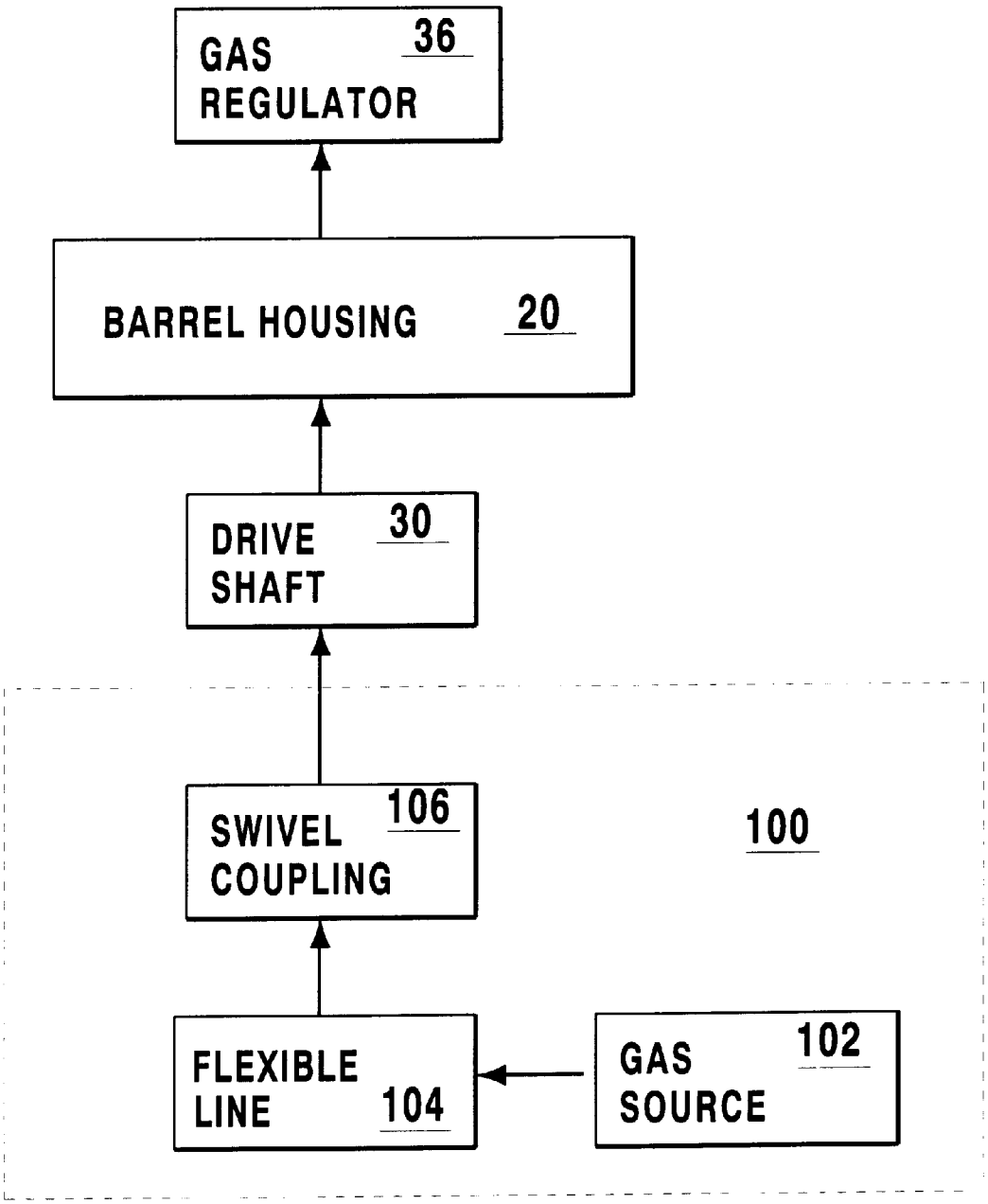

GAS REGULATOR 36
BARREL HOUSING 20
DRIVE SHAFT 30
SWIVEL COUPLING 106
100
FLEXIBLE LINE 104
GAS SOURCE 102

FIG 4

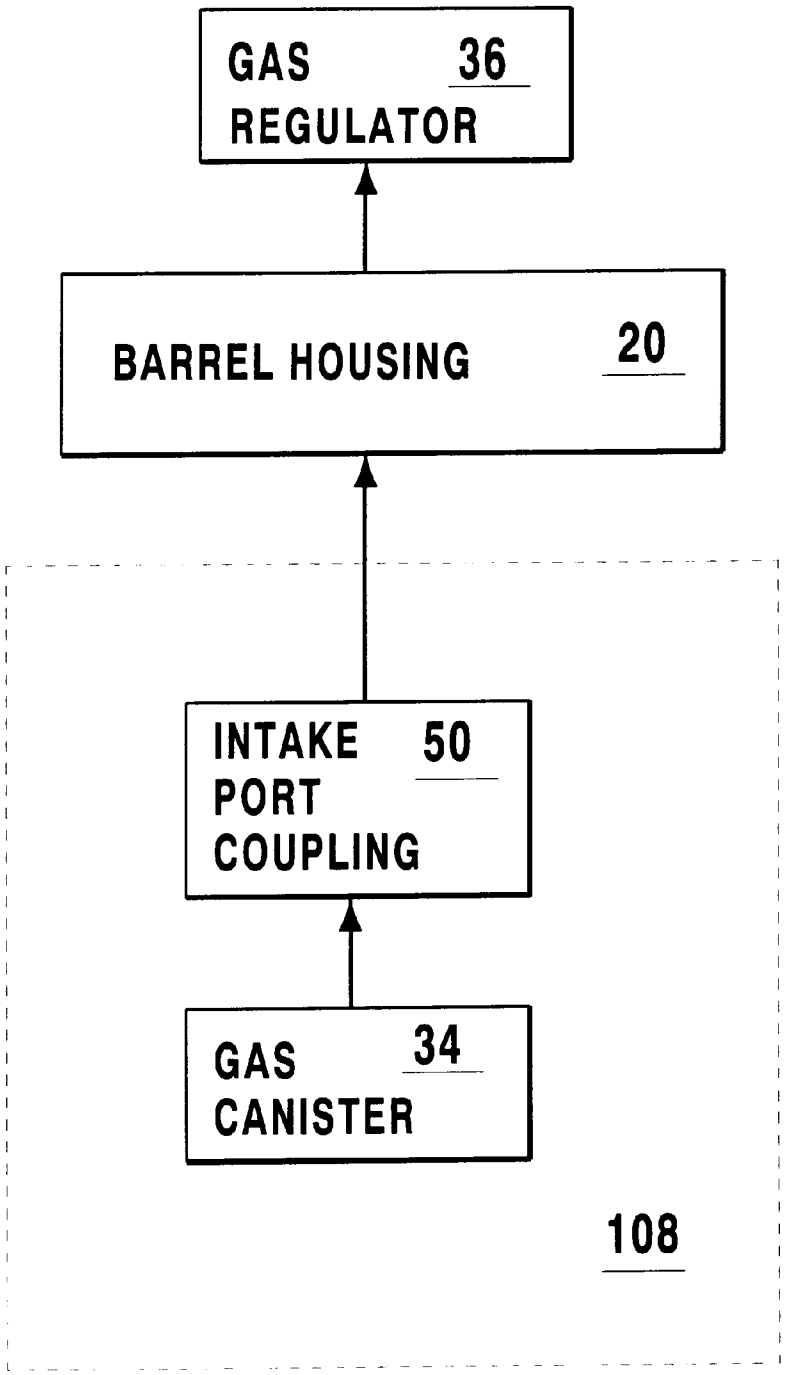
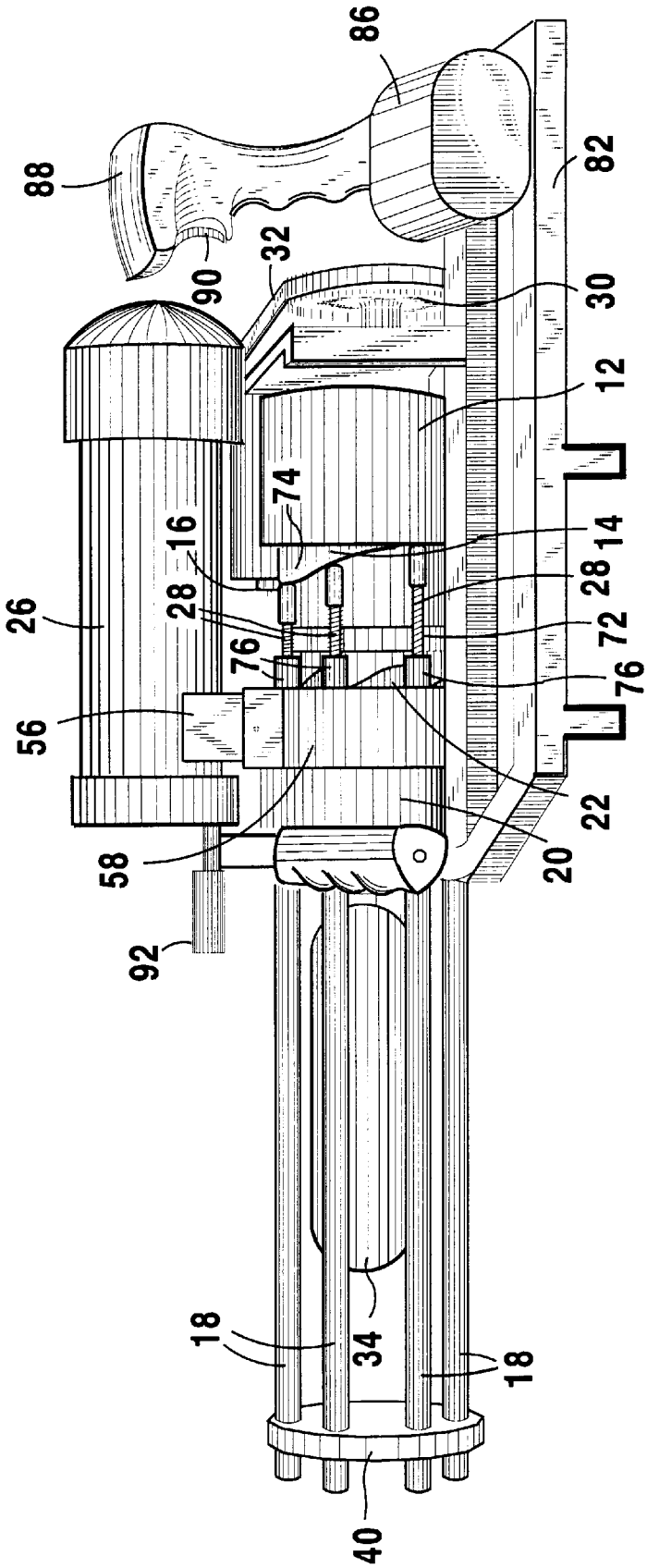

GAS REGULATOR 36
BARREL HOUSING 20
INTAKE PORT COUPLING 50
GAS CANISTER 34
108

FIG 5


86
88
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32
90
30
12
74
16
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28
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26
72
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92
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34
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40

FIG 6

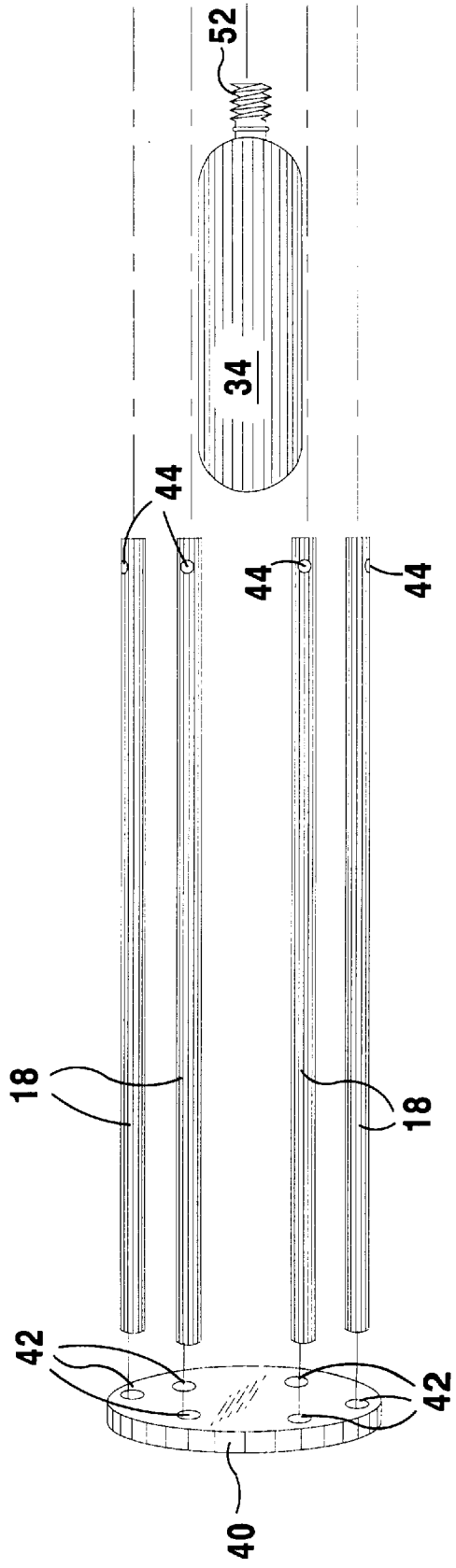
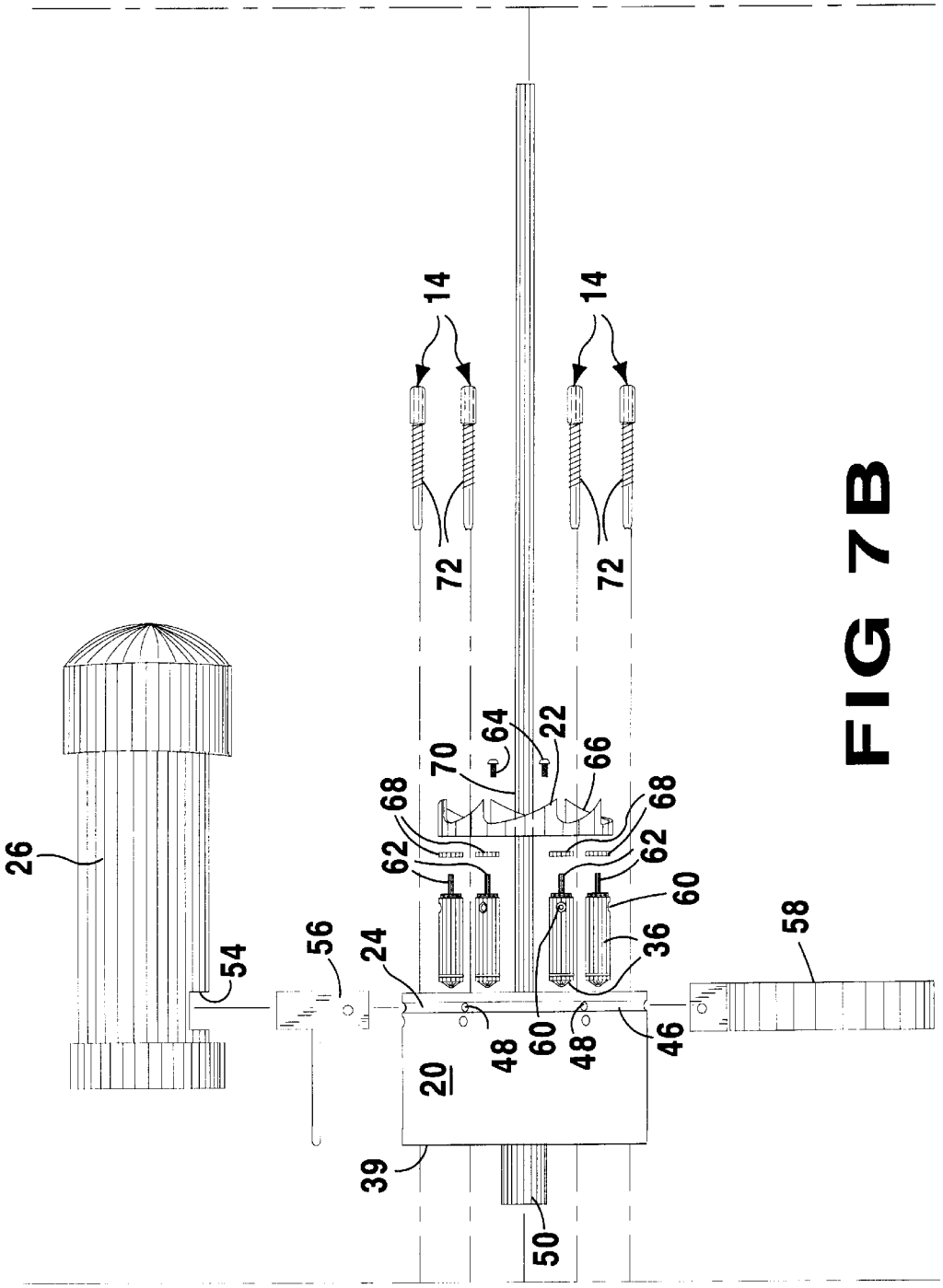


FIG 7A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72
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60
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46
20
39
50

FIG 7B

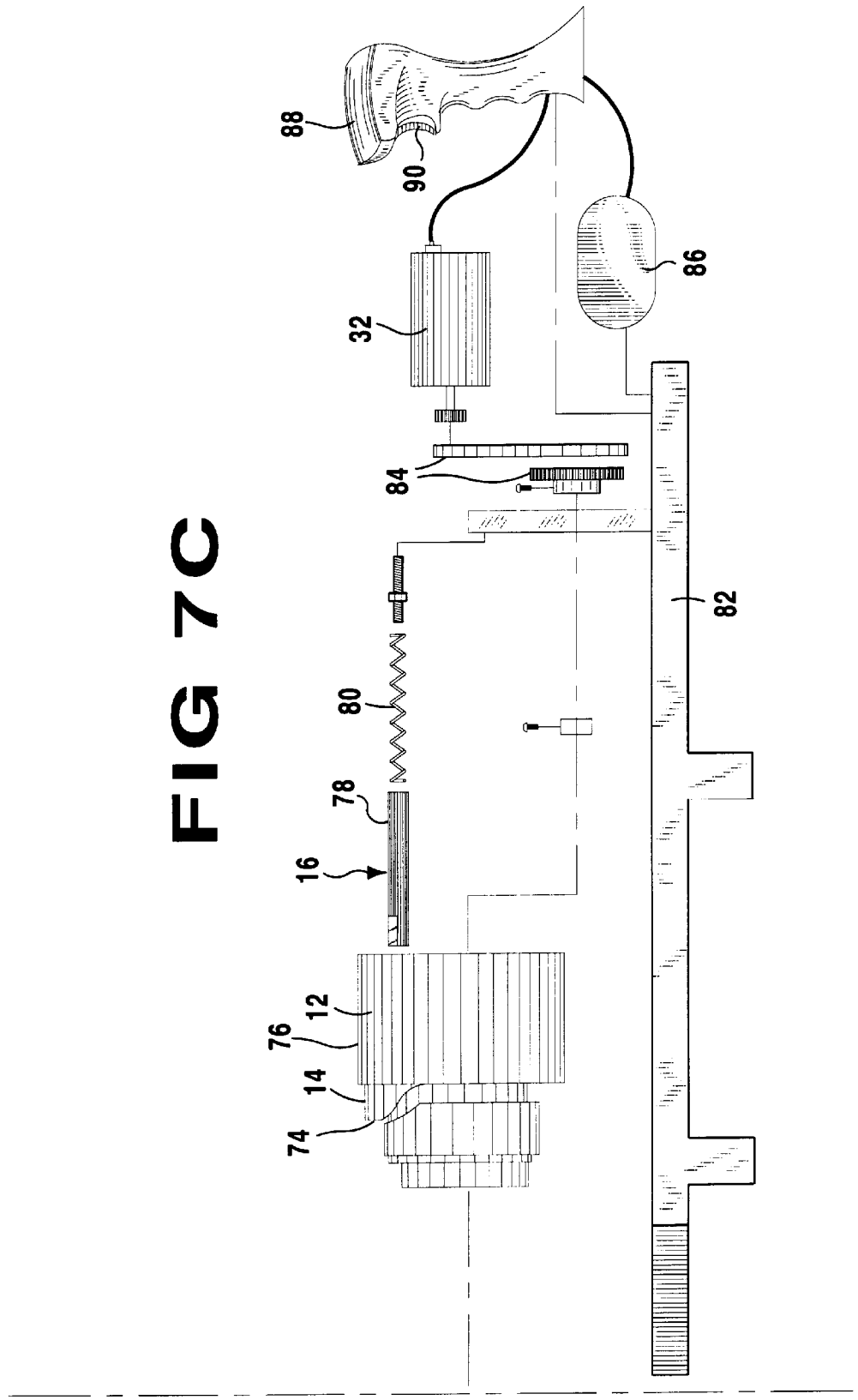

FIG 7C

MULTI-BARRELED RAPID FIRE BB GUN

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to guns and, more specifically, to a rapid fire gun or rifle having a plurality of rotating barrels each of which ejects a BB through activation of a gas regulator causing a discharge of pressurized gas for propelling the BB.

2. Description of the Prior Art

Numerous types of guns and rifles have been provided in the prior art. For example, U.S. Pat. Nos. 4,083,349; 4,108,272; 5,054,464; and 5,596,978 all are illustrative of such prior art. While these units may be suitable for the particular purpose to which they address, they would not be as suitable for the purposes of the present invention as heretofore described.

A rapid-fire B.B. pellet-type machine gun operated from a source of gas propellant preferably a canister of liquefied gas, has a trigger-operated valve releasing propellant gas from the source to a pellet containing magazine for projecting the pellets in rapid succession through a barrel passageway to be ejected from the gun at high speed at a target to which the gun is pointed. The pellets underlie and surround a sleeve in the magazine acting as a cofferdam to maintain a local level of the pellets below the gas inlet and the gas outlet so that the gas will impinge against and actuate the pellets causing them to be successively swept into the gas outlet for discharge through the barrel.

A rapid-fire air gun for generating acoustic pulses in a body of water including a reservoir of high-pressure air, a shut-off valve, and a throttle valve for admitting air to an attached firing chamber. The firing chamber has an exhaust port that is sealed by a spring loaded exhaust valve. When the shutoff valve is open, high pressure air is admitted to the firing chamber through the throttle valve at a rate depending upon the effective aperture through the throttle valve. The exhaust valve is set to open at some selected pressure and to close at some lower pressure. When the air pressure in the firing chamber exceeds the pressure setting of the exhaust valve, the valve opens to impulsively release a jet of high pressure air which generates an acoustic pulse. When the air pressure in the firing chamber drops, the valve closes and the air pressure again fills up in the firing chamber. A series of such openings and closings generates a pulse train. The pulse repetition rate, that is the frequency of the pulse train. The pulse repetition rate, that is the frequency of the pulse train, depends on the throttle valve setting and/or the tension of the exhaust valve load spring.

A rapid fire gas powered projectile gun is comprised of a projectile holder; a barrel connected to the projectile holder having a diameter smaller than the diameter of the projectile holder but at least as large as the diameter of a projectile to be fired, so the projectile to be fired stops before the barrel because of its smaller diameter but is able to pass out of the barrel when pressure is applied to the projectile; a pressurization device connected to the projectile holder with the pressurization device fluidically connected to the projectile holder; a device for activating the pressurization device; a device for biasing located within the projectile holder and forcing any projectile in the projectile holder to be moved toward the barrel; and a trigger connected to the pressurization device in such a way that when the trigger is pulled pressure passes into the projectile holder forcing the projectiles out of the barrel.

An air compressed gun **(10)** is provided having a stock **(11)**, a barrel **(12)**, a trigger **(13)** and a manual air pump **(14)**.

The gun also has a magazine **(18)** having a series of barrels **(26)** for holding several projectiles (P). An actuator **(50)** indexes the magazine with each shot of the gun and automatically actuates a release valve **(36)** which controls the firing of the gun.

SUMMARY OF THE PRESENT INVENTION

The present invention relates generally to guns and, more specifically, to a rapid fire gun or rifle having a plurality of rotating barrels each of which ejects a BB through activation of a gas regulator causing a discharge of pressurized gas for propelling the BB.

A primary object of the present invention is to provide a multi-barreled rapid fire BB gun that will overcome the shortcomings of prior art devices.

Another object of the present invention is to provide a multi-barreled rapid fire BB gun which is able to use a gas supply for propelling the BB's from the gun.

A further object of the present invention is to provide a multi-barreled rapid fire BB gun able to simulate the look and feel of a mini-gun when propelling the BB's using the supply of gas.

A yet further object of the present invention is to provide a multi-barreled rapid fire BB gun which is able to simulate the look and feel of a gatling gun when propelling the BB's using the supply of gas.

A still further object of the present invention is to provide a multi-barreled rapid fire BB gun which is able to be used for hunting or targeting.

An even further object of the present invention is to provide a multi-barreled rapid fire BB gun including a device for regulating the pressure of gas released and thus controlling the force at which the projectile is ejected from the gun.

A yet further object of the present invention is to provide a multi-barreled rapid fire BB gun including a device for adjusting the rate at which BBs are fired from the gun.

Another object of the present invention is to provide a multi-barreled rapid fire BB gun that does not have any carbon build-up or power residue.

Another object of the present invention is to provide a multi-barreled rapid fire BB gun that is simple and easy to use.

A still further object of the present invention is to provide a multi-barreled rapid fire BB gun that is economical in cost to manufacture.

Additional objects of the present invention will appear as the description proceeds.

A multi-barreled rapid fire gun and method of use for firing a plurality of projectiles contained within a container releasably connected to the gun is disclosed by the present invention. The gun includes at least one barrel for receiving the projectiles from the supply. A supply of gas is connected to the at least one barrel and a device for providing gas from the supply to the at least one barrel is connected therebetween. A gas regulator is provided for regulating a pressure of the gas supplied to the at least one barrel wherein activation of the device for providing causes the gas to be supplied to the at least one barrel to be received at a desired pressure causing the projectile to be ejected from the at least one barrel, a velocity at which the projectile is ejected and a distance at which the projectile travels being dependent upon the pressure at which the gas is provided to the at least one barrel. The multi-barreled rapid fire gun may include a plurality of barrels and a rotational motor for rotating the

plurality of barrels wherein each barrel receives a projectile to be ejected therefrom from the supply of projectiles upon each revolution. The barrels are fed the projectiles through a feedway extending around the barrel housing from which the plurality of barrels extend. The projectiles are drawn into each barrel by a bolt having a magnetic tip for attracting the projectiles which is caused to extend into the barrel prior to ejection of the projectile.

To the accomplishment of the above and related objects, this invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that changes may be made in the specific construction illustrated and described within the scope of the appended claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

Various other objects, features and attendant advantages of the present invention will become more fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the several views.

FIG. **1** is a block diagram of the multi-barreled rapid fire BB gun of the present invention;

FIG. **2** is a block diagram of the means for supplying the rotational drive to the drive shaft of the multi-barreled rapid fire BB gun of the present invention;

FIG. **3** is a block diagram of a manual rotational drive of the multi-barreled rapid fire BB gun of the present invention;

FIG. **4** is a block diagram of the device for supplying a propellant to the gas regulators of the multi-barreled rapid fire BB gun of the present invention, the supply of propellant having an unlimited capacity;

FIG. **5** is a block diagram of an alternate device for supplying a propellant of limited supply to the gas regulators of the multi-barreled rapid fire BB gun of the present invention;

FIG. **6** is a top perspective view of the multi-barreled rapid fire BB gun of the present invention; and

FIGS. **7A–7C** show an exploded view of the multi-barreled rapid fire BB gun of the present invention.

DESCRIPTION OF THE REFERENCED NUMERALS

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, the Figures illustrate the multi-barreled rapid fire BB gun of the present invention. With regard to the reference numerals used, the following numbering is used throughout the various drawing figures.

10 multi-barreled rapid fire BB gun of the present invention
12 striker housing
14 BB bolt cam
16 striker
18 plurality of barrels
20 barrel housing
22 striker cam
24 BB feedway
26 BB canister
28 BB bolt
30 drive shaft
32 rotational drive source
34 gas supply
36 gas regulator
38 gas release
39 first end of barrel housing
40 barrel alignrent plate
42 plurality of recesses in barrel alignment plate
44 recess providing access to inside of barrel
46 groove forming BB feedway
48 plurality of recesses in groove
49 second end of barrel housing
50 adapter for connection of the gas supply
52 thread around one end of gas supply
54 passageway in canister for exiting of BB's
56 BB guide block
58 BB retainer
60 recess in gas regulator
62 gas release button
64 screws securing striker cam to barrel housing
66 plurality of recesses in striker cam for receiving gas release buttons
68 washers between striker cam and gas regulators
70 recess in central portion of striker cam for receiving drive shaft
72 spring
74 bell shaped curve/hump on BB bolt cam spring adjustment regulator
76 spring adjustment mechanism
78 saw tooth projections extending from striker cam
79 projectile of striker
80 spring of striker
82 frame
84 pulley drive
86 power source
88 handle
90 trigger
92 sight
94 manual rotational drive
96 hand crank
98 worm gear
100 unlimited propellant supply
102 gas source
104 flexible line
106 swivel coupling
108 limited mobile gas supply

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, FIGS. **1** through **7** illustrate the multi-barreled rapid fire BB gun of the present invention indicated generally by the numeral **10**.

A block diagram of the multi-barreled rapid fire BB gun **10** is illustrated in FIG. **1**. The multi-barreled rapid fire BB gun **10** includes a striker housing **12** positioned at a first end of a frame and a barrel housing **20** is positioned on a second end of the frame. The striker housing **12** includes a BB bolt cam **14** and a striker **16** connected thereto. Connected to the barrel housing **20** and extending therefrom in a direction away from the striker housing **12** are a plurality of barrels **18**. The barrel housing **20** includes a striker cam **22** and a BB feedway **24** and is positioned between the striker housing **12** and the plurality of barrels **18**. The BB feedway **24** is a groove which extends around the circumference of the barrel housing **20** including a plurality of recesses extending therethrough, each of said plurality of recesses providing access to a respective one of said plurality of barrels **18**.

A BB canister **26** is positioned atop the barrel housing **20** and a plurality of BB bolts **28** extend between the striker

housing **12** and the barrel housing **20**. The BB canister **26** includes a plurality of BB's positioned therein and a passageway through which the BB's may exit the canister **26**. The passageway is aligned with the BB feedway **24** whereby any BB passing through the passageway will be received within the feedway **24**. The plurality of BB bolts **28** are each aligned with a respective one of the plurality of barrels **18**.

The barrel housing **20** is connected to a drive shaft **30** which is caused to rotate by a rotational drive source **32**. The rotation of the drive shaft **30** causes the barrel housing **20** to rotate therewith. The BB bolts **28** are made of a magnetic material and rotate with the barrel housing **20**. When each of the BB bolts **28** reaches the apex of the rotation they are positioned on a hump in the BB bolt cam **14** causing the BB bolts to extend one at a time into their respective barrel **18**. The extension into the barrel **18** positions the magnetic material forming at least a tip of the BB bolt **28** directly below a recess in the feedway **24** and thereby applying an attractive force to a BB within the feedway **24**. The attractive force causes a BB to be drawn into the barrel **18** through the recess.

A gas supply **34** is connected to the barrel housing **20** and a gas regulator **36** directs and regulates the flow of gas from the gas supply **34** into the BB feedway **24**. Once a BB is positioned within the BB feedway **24**, the striker cam **22** causes the striker **16** to extend or fire towards the barrel housing **20** and contact a gas release **38** on the gas regulator **36** causing pressurized gas to flow into the BB feedway **24** and fire the BB positioned therein through the barrel **18**. The recess in the barrel **18** and the feedway **24** is blocked by the BB passing therethrough and thus the pressure applied by the gas entering the barrel **18** is not affected thereby. The pressure at which gas is supplied from the gas supply **34** to the barrel **18** is adjustable. The amount of pressure is determines the velocity at which the projectile will exit the barrel and the distance the projectile will travel.

A perspective view of the multi-barreled rapid fire BB gun **10** is illustrated in FIG. **6** with an exploded view thereof illustrated in FIG. **7**. As can be seen from these figures, the plurality of barrels **18** and the gas supply **34** are connected to extend from a first end **39** of the barrel housing **20**. The plurality of barrels **18** are positioned about a periphery of the barrel housing **20** and the gas supply **34** is extends from a central portion of the barrel housing **20** surrounded by the plurality of barrels **18**. A barrel alignment plate **40** includes a plurality of recesses **42** extending therethrough, each recess **42** being positioned to receive a respective one of the plurality of barrels **18** for maintaining the alignment of the barrels **18**. Each barrel **18** includes a recess **44** extending therethrough providing access to the inside of the barrel for BB's or projectiles to be fired from the multi-barreled rapid fire BB gun **10**.

The barrel housing **20** is preferably round and includes the BB feedway **24** extending therearound. The BB feedway **24** is in the form of a groove **46** extending around the circumference of the barrel housing **20** and a plurality of recesses **48** extend therethrough. Each recess **48** is aligned with a respective recess **44** in one of the plurality of barrels **18**. Extending from the first end **39** of the barrel housing **20** is an adapter **50** for releasably connecting with the gas supply **34**. The gas supply **34** includes a thread **52** extending around one end thereof for mating with an inner side of the adapter **50** to form a substantially airtight releasable seal therewith.

The BB canister **26** is positioned above the barrel housing **20** and includes a passageway **54** through which BB's may exit the canister **26**. Extending from the passageway **54** is a BB guide block **56** for directing the BB's exiting the canister **26** into the groove **46**. A BB retainer **58** secures the BB guide block **56** and the BB canister **26** to the barrel housing **20** and in position above the groove **46**.

A plurality of gas regulators **36** extend into a second end **49** of the barrel housing **20** and communicate with the gas supply **34**. Each gas regulator **36** includes a recess **60** extending therethrough and aligned with the recess **44** of a respective one of the barrels **18** for supplying the gas therethrough and into the barrel **18** with which it is aligned. On one end of each of the plurality of gas regulators **36** is a gas release button **38** for releasing the gas from the gas supply **34** and into the gas regulator **38**.

The striker cam **22** is also connected to the second end **49** of the barrel housing **20**. A plurality of screws **64** may be used to form the connection and hold the striker cam **22** in position. The striker cam **22** includes a plurality of recesses **66** extending through a periphery thereof. The plurality of gas release buttons **38** each extend through a respective one of the recesses **66**. A washer **68** may be positioned between the gas regulators **36** and a respective one of the recesses **66**. A recess **70** is also positioned to extend through a central portion of the striker cam **22** for receiving the drive shaft **30** connected to the rotational drive source **32**. The drive shaft **30** is connected to the barrel housing causing the barrel housing **20** to rotate therewith.

A plurality of BB bolts **28** are positioned between the barrel housing **20** and the striker housing **12**. Each BB bolt **28** is aligned with and extends into a respective one of the plurality of barrels **18**. The BB bolts **28** thus rotate with the barrel housing **20** and barrels **18**. Each of the BB bolts **28** include a spring **72** positioned therearound allowing for extension and retraction of the respective BB bolt **28** during rotation. An opposing end of each BB bolt **28** contacts the striker housing **12**. Extending from the striker housing **12** and providing the surface on which the BB bolts contact and traverse is the BB bolt cam **14**. The BB bolt cam **14** is a flat sheet including a humped somewhat bell shaped curve **74** positioned at a top side **76** of the striker housing **12**. Thus, when one of the BB bolts **28** rotates to the top of the hump **74**, the BB bolt **28** rides along the hump **74** and is caused to extend into the barrel **18** with which it is aligned positioning its magnetic end below the recess **48** in the passageway **24** causing a BB to be pulled into the barrel **18**. A spring adjustment regulator **76** is positioned on an end of each of the BB bolts **28** causing the spring **72** on the respective BB bolt **28** to coil when the BB bolt **28** is caused to extend into the barrel **18**. The spring adjustment regulator **76** regulates the tension of the spring **72** and allows the spring **72** to return to its original position after the BB bolt **28** is removed from the barrel **18** and passes over the hump **74**.

The striker cam **22** is attached to the barrel housing **20** but does not rotate therewith. The striker cam **22** is a round plate including a plurality of saw tooth projections **78** extending from a periphery thereof and towards the striker housing **12**. One saw tooth projection **78** is provided for each BB bolt **28**. The BB bolts **28** are caused to ride over the saw tooth projections **48** as they rotate. As the BB bolts **28** ride over the top of one of the saw tooth projections **78** the spring **72** is caused to coil thereby loading the BB bolt **28**. When passing over the saw tooth projection **78** immediately prior to the firing position the BB bolt is caused to recoil activating the striker **16** to fire and activate the gas release button **38**. The striker **16** includes a projectile **78** and a spring **80** whereby when triggered, the spring **80** recoils causing the projectile **78** to project towards the gas release button **38** and upon contact with the gas release **38** of the gas regulator **36**

causes gas to be supplied to the barrel **18** aligned therewith and containing a BB positioned therein. The contacting of the gas release button **62** causes gas to be delivered at a pressure regulated by the gas regulator **36** and thereby ejecting the BB through the barrel **18**.

The rotational drive source **32** is attached to a frame **82** and located on a side of the striker housing **12** opposite the barrel housing **20**. The rotational drive source **32** is connected to a pulley drive **84** causing it to rotate. The pulley drive **84** is connected to the drive shaft **30** imparting a rotational movement thereto and causing the barrel housing **20** and all elements connected thereto to rotate. A power source **86** is also connected to the frame **82** and provides power to drive the rotational drive source **32**.

A handle **88** is connected to the frame **82** adjacent the rotational drive source **32** for use in controlling the position and aiming of the multi-barreled rapid fire BB gun **10**. Positioned on the handle **88** is a trigger **90**. The trigger **90** is connected between the power source **86** and the rotational drive source **32** whereby when the trigger **90** is activated, the power source **86** is connected to provide power to the rotational drive source **32** causing the rotational drive source **32** to turn the drive shaft **30** and thus the barrel housing **20** to align the next barrel and BB bolt in firing position, causing a BB to be received by the barrel **18**. When the trigger **90** is activated, the striker **16** is caused to press the gas release button **38** causing gas to be delivered from the gas supply **34** to the barrel **18** at a pressure determined by the gas regulator **36** causing the BB to be fired or ejected from the barrel **18** at a force determined by the gas pressure. A sight **92** is connected to the frame **82** and extending over the barrels **18** for use in aiming the multi-barreled rapid fire BB gun **10**.

A block diagram of the motorized rotational drive **32** is illustrated in FIG. **2**. This figure shows the motorized rotational drive **32** using the trigger **90** to connect the motor **32** to the power source **86** in order to rotate the drive shaft **30**. When the trigger **90** is activated by a user such as when firing the multi-barreled rapid fire BB gun **10**, power is supplied to the motor **32** causing the motor **32** to rotate the drive shaft **30** and thereby rotate the barrel housing **20** connected thereto. Rotation of the barrel housing **20** causes a barrel adjacent to the barrel **18** through which a BB was just fired to move into alignment with the firing position. Each time the trigger **90** is activated, a BB will be fired through the aligned barrel **18** and an adjacent barrel **18** will be moved into the firing position.

A block diagram of a manually activated rotational drive unit **94** is illustrated in FIG. **3**. The manual rotational drive **94** includes a hand crank **96** connected to a worm gear **98**. The worm gear **98** is connected to the drive shaft **30** which is in turn is connected to the barrel housing **20**. When a user turns the hand crank **96**, the worm gear **98** is caused to turn. The worm gear **98** turns the drive shaft **30** and thus turns the barrel housing **20**.

FIG. **4** is a block diagram of an unlimited propellant supply **100** for powering the multi-barreled rapid fire BB gun **10**. The supply **100** includes a source of gas **102** which may be from a large tank or connected to a gas line having an unlimited or very large capacity. Use of such a supply will increase the range of the multi-barreled rapid fire BB gun **10** while also increasing the number of rounds which may be fired between adjustments of the multi-barreled rapid fire BB gun **10** and refilling of the gas supply **34**. The gas source **102** is coupled to a flexible line **104** for transporting the gas to the multi-barreled rapid fire BB gun **10**. A swivel coupling **106** couples the flexible line to the multi-barreled rapid fire BB gun **10** and provides the supply of gas along the drive shaft **30** and to the barrel housing **20** in which it is delivered to the gas regulator **36**. When the trigger **90** is activated or the hand crank **96** is turned, the gas regulator is caused to release an amount of gas into the barrel **18** causing the BB positioned therein to be projected from the barrel at a target. A multi-barreled rapid fire BB gun **10** including such a supply has limited mobility but a much greater range than a multi-barreled rapid fire BB gun **10** having a more mobile gas supply.

A more mobile gas supply is illustrated in block diagram form in FIG. **5**. This supply is illustrated throughout the figures and includes the gas canister **34** which is coupled to the intake port coupling or adapter **50**. The adapter **50** is connected to the barrel housing **20** which supplies the gas received from the adapter **50** to the gas regulator. When the trigger **90** is activated or the hand crank **96** is turned, the gas regulator is caused to release an amount of gas into the barrel **18** causing the BB positioned therein to be projected from the barrel at a target.

The operation of the multi-barreled rapid fire BB gun **10** will now be described with reference to the figures. In operation, the multi-barreled rapid fire BB gun **10** is grasped by a user and a gas supply **34** is connected to the adapter **50**. A canister **26** filled with a projectile is then secured atop the barrel housing **20** by the retainer with the guide block positioned to extend from the passageway in the canister **26** to the feedway **24**. The gas pressure is then set on the gas regulator **36** and the power source **92** is connected to the rotational drive source if a motorized drive is being used. The multi-barreled rapid fire BB gun **10** is now ready for use.

The user will now grasp the multi-barreled rapid fire BB gun by the handle **90** and adjust the scope **92** prior to firing a projectile therefrom. The user will then aim and either activate the trigger **88** or turn the hand crank **102**. Activation of the trigger **88** and turning of the hand crank **102** causes the drive shaft **30** to turn. The drive shaft in turn will cause the barrel housing **20** to turn and thus the barrels **18** will turn. As the barrel housing turns the bolts **28** are caused to travel around the periphery of the bolt cam **14**. As one of the bolts **28** reaches the hump of the bolt cam **14** it is caused to extend into the barrel **18** aligned therewith. This causes the magnetic portion of the bolt **28** to extend toward an aligned recess of the feedway **24** and thereby draw a projectile into the barrel. As the bolts **28** continue to rotate, they pass over the saw tooth projections extending from the striker cam causing the striker to be activated and thereby activate a gas release button **38**. Activation of the gas release button **38** causes the gas regulator **36** to deliver a supply of pressurized gas from the gas supply to the barrel causing the projectile within the barrel to be ejected therefrom. The velocity of the projectile and distance it travels is determined by the preset pressure of the gas. As the trigger is continually pressed or even held or as the hand crank **102** is turned the process repeats as the drive shank and barrel housing are continually turned. This will continue as long as the supply of gas provides a sufficient amount of gas pressure to the projectile. When the gas supply is low, the gas tank must be changed and the process can continue.

Throughout the description the present invention has been described as projecting BB pellets through the barrels. In practice any type of projectile may be ejected through the barrels as long as the projectile is of a size slightly smaller than the internal circumference of the barrels. Furthermore, no specific type of gas was disclosed as the gas supply. In

use any type of gas may be used to eject projectiles from within the barrels. The pressure that the gas is placed under is the critical factor in determining the distance or range of the multi-barreled rapid fire BB gun **10** and the number of rounds the multi-barreled rapid fire BB gun **10** will be able to fire before replenishing the supply of gas.

From the above description it can be seen that the multi-barreled rapid fire BB gun of the present invention is able to overcome the shortcomings of prior art devices by providing a multi-barreled rapid fire BB gun which is able to use a gas supply for propelling the BB's from the gun. The multi-barreled rapid fire BB gun able to simulate the look and feel of either a mini-gun or a gattling gun when propelling the BB's using the supply of gas and can be used for hunting or targeting. The multi-barreled rapid fire BB gun also includes a device for adjusting the force at which the projectile is ejected from the gun. Furthermore, the multi-barreled rapid fire BB gun of the present invention is simple and easy to use and economical in cost to manufacture.

It will be understood that each of the elements described above, or two or more together may also find a useful application in other types of methods differing from the type described above.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claims, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. A multi-barreled rapid fire gun for firing a plurality of projectiles from a supply of said projectiles contained within a container releasably connected to the gun, said multi-barreled rapid fire gun comprising:

a) means for receiving said projectiles from said supply;

b) a supply of gas;

c) means for providing said gas to said receiving means;

d) means for regulating a pressure of said gas supplied to said receiving means wherein activation of said means for providing causes said gas to be supplied to said receiving means at a desired pressure causing said projectile to be ejected from said receiving means, a velocity at which said projectile is ejected and a distance at which said projectile travels being dependent upon the pressure at which the gas is provided to the receiving means;

e) said receiving means including a plurality of barrels and further comprising means for rotating said plurality of barrels wherein each barrel receives a projectile to be ejected therefrom from said supply of projectiles upon each revolution; and

e) each of said barrels includes a recess extending therethrough and said means for rotating includes a feedway extending therearound and a plurality of recesses extending through the feedway whereby each feedway is aligned with said recess in a respective one of said plurality of barrels, wherein said projectiles are received by said feedway and delivered to each of said barrels through said recess in said feedway and said recess in said barrel.

2. The multi-barreled rapid fire gun as recited in claim **1**, further comprising a plurality of bolts each bolt being aligned with a respective one of said barrels, wherein as each of said barrels are rotated into a firing position, said respective bolt is caused to extend into said barrel and draw a projectile through said recess in said feedway and said recess in said barrel.

3. The multi-barreled rapid fire gun as recited in claims **2**, wherein an end of plurality of bolts which extends into said barrel includes a magnetic material and said projectiles are made of a metallic material whereby when said magnetic end of each bolt extends into said respective barrel, a projectile is drawn into said barrel by magnetic attraction.

4. The multi-barreled rapid fire gun as recited in claim **3**, further comprising means positioned around said means for rotating for retaining said projectiles in said feedway.

5. The multi-barreled rapid fire gun as recited in claim **1**, wherein said means for rotating includes a motor, a drive shaft extending from and rotated by said motor and a barrel housing connected to rotate with said drive shaft, said plurality of barrels being connected to extend from said barrel housing.

6. The multi-barreled rapid fire gun as recited in claim **5**, further comprising a trigger connected between said motor and a power supply, wherein said trigger connects the power supply to said motor when activated.

7. The multi-barreled rapid fire gun as recited in claim **1**, wherein said means for rotating includes a hand crank, a worm gear connected to and rotated by said hand crank, a drive shaft extending from and connected to rotate with said worm gear and a barrel housing connected to rotate with said drive shaft, said plurality of barrels being connected to extend from said barrel housing.

8. The multi-barreled rapid fire gun as recited in claim **1**, wherein said gas supply is a canister connected to said means for providing.

9. The multi-barreled rapid fire gun as recited in claim **1**, wherein said plurality of projectiles are BB pellets.

10. The multi-barreled rapid fire gun as recited in claim **1** further comprising a handle for use in holding the gun and aligning the gun for firing.

11. The multi-barreled rapid fire gun as recited in claim **1**, further comprising a scope for aiming the gun at a target prior to firing.

12. A method of ejecting a projectile from a multi-barreled rapid fire gun comprising the steps of:

a) providing said projectile to a barrel of the gun by rotating a feedway positioned at a passageway of a canister retaining projectiles therein, supplying a plurality of projectiles to the feedway, and supplying a projectile to each of a plurality of barrels rotating with the feedway as each barrel passes directly below the canister retaining the projectiles therein;

b) positioning the projectile within the barrel;

c) activating a gas release button; and

d) supplying an amount of gas to the barrel at a predetermined pressure causing the projectile to be ejected

from the barrel, a velocity at which the projectile travels and a distance traveled by the projectile being dependent upon the pressure at which the gas is supplied to the barrel.

13. The method as recited in claim **12**, wherein said step of supplying further comprises the step of inserting a bolt into each barrel as the barrel passes below the canister causing a projectile in the feedway to be drawn into the barrel via magnetic attraction.

14. The method as recited in claim **12**, wherein said step of rotating is automatically performed by a motor.

15. The method as recited in claim **12**, wherein said step of rotating includes the step of manually turning a hand crank.

16. The method as recited in claim **12**, wherein said projectiles are retained within the feedway while the feedway is rotating by a projectile retainer positioned to cover the feedway.

17. The method as recited in claim **12**, further comprising the step of activating a striker for releasing the gas from the gas supply when one of the barrels receives a projectile therein.

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