Oct. 29, 1968 G. H. FREED 3,407,526

REVOLVER-TYPE PISTOL FOR FIRING SHOTGUN CARTRIDGES

Filed Dec. 1, 1966 2 Sheets-Sheet 1

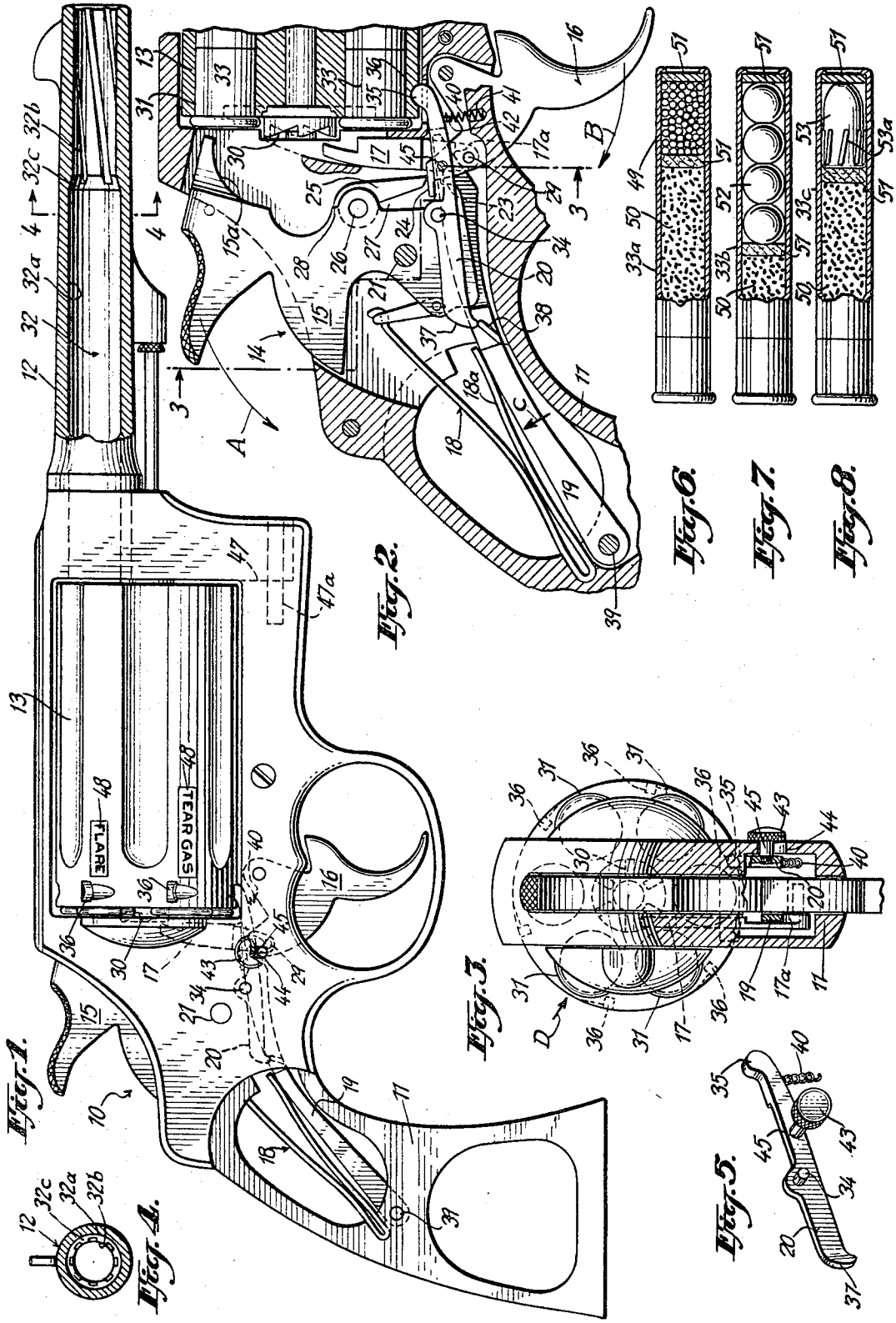


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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Filed Dec. 1, 1966 2 Sheets-Sheet 2

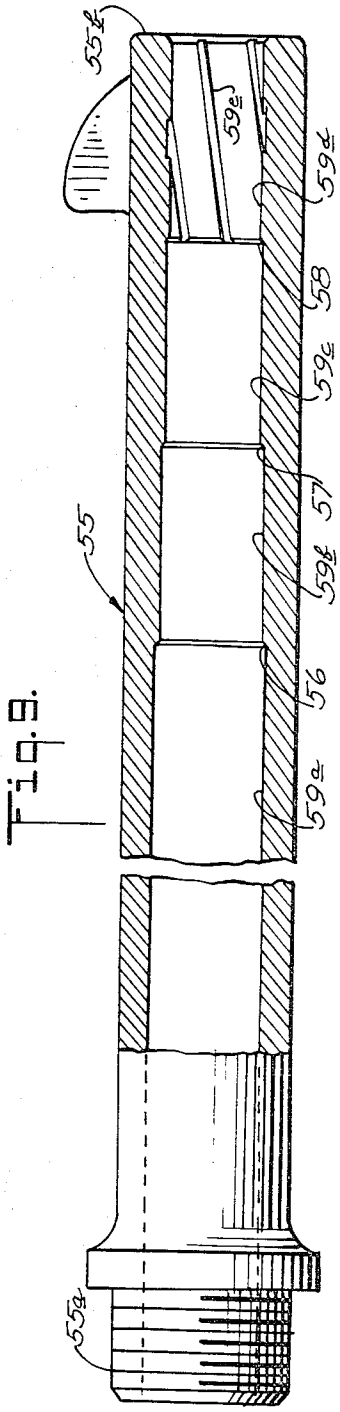


Fig. 9.

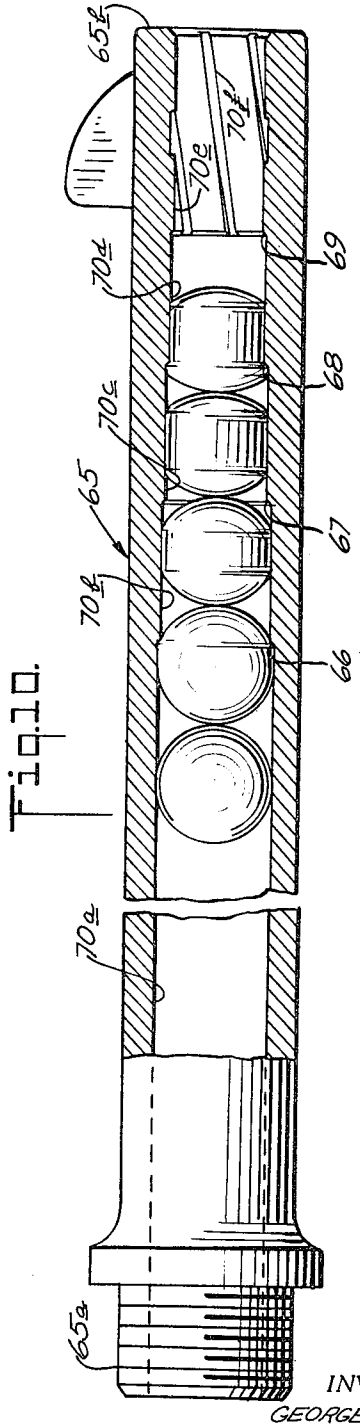


Fig. 10.

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United States Patent Office 3,407,526
Patented Oct. 29, 1968

3,407,526

REVOLVER-TYPE PISTOL FOR FIRING SHOTGUN CARTRIDGES

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Continuation-in-part of application Ser. No. 534,844, Mar. 16, 1966. This application Dec. 1, 1966, Ser. No. 607,341
13 Claims. (Cl. 42—59)

ABSTRACT OF THE DISCLOSURE

Single or double-action revolver-type pistol for firing shotgun cartridges containing all types of loads including multiple large ball loads (i.e., ball diameter approximates breech-bore diameter of barrel); pistol length barrel has plurality of immediately adjacent smooth-bored barrel bore portions of sequentially reduced diameter towards muzzle end, thereby defining one or preferably more abrupt chokes within the barrel; that short-length bore portion (i.e., length less than that of the load to be fired) which extends between the last such choke and the muzzle end of the barrel has rifling therein; smooth-bored barrel portion adjacent breech end extends major portion of barrel length; remaining smooth-bored barrel portions have respective lengths at least equal to breech end barrel bore diameter; button release of cylinder stop for manually rotating cylinder; and indicia on cylinder adjacent each cartridge receiving chamber distinguishing type of load therein from different type loads in other chambers.

Specification

This application is a continuation-in-part of my copending application Ser. No. 534,844, filed Mar. 16, 1966, now abandoned.

This invention relates to firearms and more particularly to those having special purpose applications.

In police and military work, for example, it has heretofore been necessary that a variety of weapons, such as pistols, shotguns, rifles, flare guns, tear gas guns, etc. be available for use by an officer in locating, approaching, and apprehending criminals or the like, and for riot control and other purposes. The provision of such multiple firearms is expensive and, of course, the equipping of each individual officer with such multiplicity of weapons is impractical for obvious reasons. Thus, such variety of weapons can be made available only to officers who are also furnished with motor vehicles in which the weapons are carried.

The present invention provides a single firearm, in pistol form for convenient carrying and shooting, which is capable of selective firing of a variety of loads as would ordinarily be necessary or desirable in such police or military work. Of course, the firearm provided by the invention will also be found useful to hunters in locating and killing game. Thus, when carrying the single weapon of the present invention, the scope of available techniques which the user may employ in hunting, criminal apprehension, crowd control and other circumstances is greatly enhanced without the need for carrying a multipility of special purpose weapons.

In a related aspect, the invention provides particular features in a gun barrel rendering it capable of firing buckshot and exceptionally large sized single and multiple ball loads with safety, high accuracy, and optimum spread pattern, even though the barrel has no heavier than average weight and is no longer than is conventional for pistols. For example, in its preferred embodiment the pistol receives size .410 gauge shotgun-type cartridges up to 3"

long, and its barrel is adapted for safe and accurate firing of up to a five-ball multiple load where the diameter of each of the five balls is the maximum which the cartridge casing will accept, i.e. up to .410" or slightly less. Further, whereas a conventional shotgun has a spread pattern such that, depending upon whether its barrel is choked or not, it is capable of placing from 35–40% (no choke) to about 70% (full choke) of its fired multiple shot load within a 30" diameter target at a range of 40 yards, 100% of multiple shot loads (even the referred to large ball loads) fired from a pistol in accordance with the preferred embodiment of the present invention will be placed within a 20" diameter target at the same range. Moreover, muzzle velocity for given loads is thought not to be significantly reduced, so that the pistol may be said to have virtually the same range as conventional shotguns and pistols.

Thus, the advantages to law enforcement officers, troops in wartime, and similar personnel having a pistol-type firearm, capable of firing multiple large-ball loads as well as conventional buckshot with the same range and better accuracy than a conventional shotgun or pistol, are manifest. For example, even comparing the results with those of a semi-automatic or automatic rifle, the chance of bringing down a swiftly moving or darting target with a single shot of five heavy slugs fired in a spread pattern, any one of which is capable of a kill, is far better than that afforded by five shots even rapidly fired in succession with what must be more careful aim.

With regard to the prior art, applicant is aware of pistol-type firearms capable of firing buckshot loads (see, for example, Le Mat U.S. Patent 15,925); pistol-type gas guns (see, for example, Manville U.S. Patent 2,151,521); the so-called "paradox" bore standard-size shotguns; and conventionally choked shotguns and long-taper choke shotguns. However, none of these known guns achieve the results afforded by the present invention. For example, an up-to-date authoritative source states with regard to chokes in firearms that, "Spherical balls (fired from such weapons) must be no larger than the smallest diameter of any choke in which they might conceivably be fired." In contrast, the preferred embodiment of the present invention safely fires single and multiple spherical ball loads, where each ball diameter approximates .410", through a final choke barrel diameter of .350", i.e., .060" constriction as compared with the conventional maximum of .040" constriction in full-choked guns.

Briefly, the invention in its preferred embodiment provides a revolver type pistol incorporating both single action and double action movement of its firing mechanism and having a rotatable cylinder for containing a plurality of .410" gauge shotgun type cartridges, a means for manually releasing the cylinder for manual rotation to selectively index any of its cartridge chambers into alignment with the barrel independently of any movement of its firing mechanism, and a particular type of bore of its barrel which adapts the pistol to fire any of a variety of types of cartridge loads. Thus, the individual cartridges which the pistol is capable of firing may be loaded either as blanks for celebration and other sport uses, as a flare, or with tear gas, bird shot, buck shot, rifled slug, or multiple-ball loads, and the pistol may be loaded with a variety of such cartridge loads for firing in any selected order. A cylinder-stop release button is employed to release the cylinder for manual rotation when the cylinder is in its position ready for firing. Indicia appears on the pistol cylinder to identify at the time of selection the type of cartridge contained in any particular cartridge chamber, or to avoid mistake when loading the pistol as to the sequence of firing where it is anticipated that rapid sequence of firing will be required. It has been found that all of the several mentioned types of loads may be safely and accurately fired through a barrel which is

smooth-bored over the major portion of its length from its breech end, and has multiple step-down parallel chokes as described over the remainder of its length towards its muzzle end, and is rifled along its constricted length immediately adjacent its muzzle end.

Thus, in night time police or military work for example, after properly loading the pistol an officer may first fire a flare type shell to momentarily light his target, and then select either tear gas, rifled slug, multi-ball or other buck shot load to fire on his target under the particular circumstances which he observes.

It is believed that the diameter of the barrel can be larger or smaller than .410", provided the features of the invention are incorporated therein, and that cartridges having either conventional or especially adapted gauge, or length, or load may be used in conjunction with the invention.

These and other objects, features and advantages of the invention will become apparent from the following detailed description of the invention when taken together with the accompanying drawings in which:

FIGURE 1 is a side view of a pistol incorporating the invention, its handle grip plates being removed and its barrel being shown in cross-section;

FIGURE 2 is an enlarged and fragmentary cross-sectional showing of the firing action mechanism of the same pistol;

FIGURE 3 is a similarly enlarged sectional view of the same pistol, as seen from lines 3—3 in FIGURE 2;

FIGURE 4 is a sectional view of the pistol barrel as seen from lines 4—4 in FIGURE 1;

FIGURE 5 is a perspective showing approximately to the scale of FIGURE 2 of only the cylinder-stop element and its associated spring and release button, as incorporated in the same pistol;

FIGURES 6 to 8 are cross-sectional showings to the scale of FIGURE 1 of cartridges which may be fired using the pistol, to illustrate only three of the several types of loads which such cartridges may contain;

FIGURE 9 is a fragmentary cross-sectional view, to an enlarged scale, of only the barrel portion of a firearm incorporating a preferred modified form of the invention; and

FIGURE 10 is an enlarged showing similar to FIGURE 9 of a pistol barrel incorporating a modification of the preferred form of the invention.

Referring first to FIGURE 1, a revolver type pistol incorporating the invention is generally indicated by reference numeral **10**. The pistol has a frame **11** to which is attached a barrel **12**, and on which is mounted a rotatable cartridge receiving cylinder **13** and the elements which together provide its firing action mechanism. As shown in FIGURE 2, the firing action mechanism is generally indicated by reference numeral **14** and is of a conventional Colt type comprising a hammer **15**, a trigger **16**, a hand element **17**, a main spring **18**, a rebound lever **19**, and a cylinder stop lever **20**. Although a Colt firing action mechanism is illustrated, it will be understood that other firing action mechanisms may be employed.

Although a mechanism capable of only single-action firing might be used, the described mechanism **14** is capable of both single-action and double-action firing as is desirable for affording maximum utility of the firearm. That is, the hammer **15**, which is pivotally mounted on the frame **11** by a hammer pin **21**, includes both a single-action sear **23** which in the illustrated released position of the hammer and trigger engages the underside of the trigger sear **24**, and a double-action sear **25** which is pivotally mounted on hammer **15** by a strut pin **26** and is biased outwardly by a strut spring **27** against the stop **28** of the hammer **15**. Thus, upon manually moving the hammer **15** in the direction of arrow A and against the bias of mainspring **18** from its released position shown in FIGURES 1 and 2, to its position in which its single-action sear **23** becomes interlocked with the trigger sear **24**, the mechanism is cocked for single-action firing; whereas upon finger movement of the trigger **16** in the direction of arrow B the trigger sear **24** lifts the double-action hammer sear **25** and thereafter overrides the same thus provoking double-action firing of the pistol, all in manner as is well known. Also in well known manner, the movement of the trigger **16** in the direction of arrow B commensurate with either the single-action or double-action movement of the mechanism **14** lifts the hand element **17**, which is pivotally mounted on trigger **16** by the hand axle **29**, so that the hand element **17** engages the conventional cylinder ratchet **30** to commensurately rotate the cylinder **13** to index one of its cartridge receiving chambers **31** into firing alignment with the bore **32** of the barrel **12**. In either case, the disengagement or overriding of the trigger sear **24** with respect to either of the respective hammer sears **23** or **25** permits the hammer **15** to spring forward in response to the bias of main spring **18** so that its hammer pin **15***a* will strike and fire the cartridge (generally indicated by reference numeral **33**) which is contained in the indexed cartridge receiving chamber **31**. Return of the trigger **16** from its firing position to its released position as shown in FIGURES 1 and 2, after the firing of the cartridge **33**, is responsive to the downward urging of rebound lever **19** on the hand element shoulder portion **17***a* which urging is, in turn, transmitted to the trigger **16** via the hand axle **29**.

As is also conventional, the cylinder stop **20** is pivotally mounted for rocking type movement on a pin **34** attached to the frame **11**. The cylinder stop **20** has a forward end **35** which is adapted to successively engage and disengage the peripherally spaced cylinder detents **36** commensurate with each chamber indexing rotative movement of the cylinder **13**. Its opposits end **37** is adapted to engage a laterally projecting lug **38** of the rebound lever **19**. As previously mentioned, the rebound lever **19** is biased into engagement at its forward or free end with the hand **17** (through its shoulder portion **17***a*) by the urging of the lower leaf **18***a* of main spring **18**, the rebound lever **19** being pivotally mounted at its opposite end to the frame **11** by a pin **39**. Thus, the lifting of hand element **17** commensurate with the cocking movement of the hammer **15** and trigger **16**, as previously described, lifts the rebound lever **19** in the direction of arrow C. During such pivotal movement of the rebound lever **19**, the rearward end **37** of the cylinder stop **20** will also be urged upwardly by its engagement of the laterally projecting rebound lever lug **38**. The cylinder stop is thereupon pivoted about the axis of its mounting pin **34** so that its forward end **35** moves downwardly out of engagement with one of the cylinder detents **36**, into which the end **35** has previously been biased by the upward urging of a cylinder stop spring **40**. At its lower end, the spring **40** is mounted within a recess **41** of the frame **11** at a location which is laterally adjacent to the trigger **16** and, at its upper end, the spring **40** is in bias pressure engagement with the underside of the cylinder stop **20** at a location adjacent the forward end **35** of the latter. A downwardly projecting pin **42** of the cylinder stop **20** assures engagement of the spring **40** with the cylinder stop. Upon further movement of the rebound lever **19** in the direction of arrow C in response to continued firing actuation movement of the trigger **16** and hammer **15**, the cylinder stop end **37** rides off the rebound lever lug **38**, thereby permitting the cylinder stop **20** to pivot in opposite direction, responsive to the urging of its spring **40**, so that its forward end **35** is thereupon biased into seating engagement with the cylinder detent **36** which is next in sequence around the cylinder **13** upon the chamber indexing movement of the cylinder having been completed. Such engagement of the cylinder stop end **35** within any cylinder detent **36** will limit the rotative movement of the cylinder **13** in indexing one of its cartridge receiving chambers **31** into alignment with the barrel bore **32** of the pistol, as is understood by those

having skill in the art. As is also well understood, upon the trigger and hammer sear elements becoming disengaged or riding apart in response to the aforementioned additional movement required to fire the pistol, and upon the trigger **16** being released by the finger, the urging of main spring **18** will cause the rebound lever **19** to pivot in direction opposite to that shown by arrow C, whereupon the rebound lever lug **38** will drop past the cyinder stop end **37** to position the lug **38** therebelow for initiating another cycle of rocking movement of the cylinder stop **20** in response to a subsequent firing actuation of the trigger. For this purpose, the cylinder stop **20** is made of thin stock towards its end **37** so that, due to the respective confronting configurations of the cylinder stop end **37** and the side edge of the rebound lever lug **38**, the cylinder stop end **37** will resiliently deform in lateral direction, with respect to its plane of pivotal movement, to permit such repositioning of the rebound lever lug **38** with respect to the cylinder stop end **37** at the end of the firing actuation cycle.

Mounted on the frame **11** by a pivot shaft **47***a* for swinging movement towards the opposite side of the pistol **10** as viewed in FIGURE 1, and therefore illustrated only by dotted line showing in that figure, is a conventional cylinder crane **47**, on which the cylinder **13** is mounted, which permits the cylinder **13** to be swung ninety degrees outwardly with respect to the frame **11**, in direction towards the rearward side of FIGURE 1 or the left hand side of FIGURE 3, for manual loading of the cartridges **33** into the respective cartridge chambers **31**.

Turning now to the novel features provided by the present invention, FIGURES 1 and 3 show that the cylinder **13** has six annularly disposed cartridge receiving chambers **31**. The cylinder **13** is elongated, as compared with the cylinder length usually found in conventional revolvers, to accommodate up to 3" length cartridges of the shotgun type such as those illustrated in FIGURES 6–8, and the bore diameter of each cartridge receiving chamber **31** is such as to accommodate a .410 gauge cartridge, although the cylinder and chambers may be sized to receive cartridges of larger or smaller gauge or length.

So that the cylinder **13** when in its normal cartridge-firing position as shown in FIGURES 1–3 may be manually rotated to selectively index any of its six cartridge chambers **31** into the position or indexing station which, in the direction of cylinder indexing movement responsive to a firing actuation of the mechanism **14**, is next away from its alignment with the barrel bore **32**, the cylinder stop **20** has an attached button **43** which projects through a substantially vertical slot **44** of the frame **11**. As shown in FIGURES 1, 2 and 5, button **43** is attached to the cylinder stop **20** at a location therealong which is a distance away from the pivotal axis **34** of the cylinder stop, preferably in the direction of the cylinder stop forward end **35**, although the button might be attached adjacent the cylinder stop rearward end **37** depending upon whether downward or upward movement of the button is preferable at the time when the cylinder **13** is to be manually rotated. The buttton shaft **45** is attached to the cylinder stop **20** as by a threaded connection **46**, as shown in FIGURE 3. Thus, when it is desired to manually index any particular cartridge chamber **31** into the position which is next away from its alignment with the pistol barrel when the cylinder is in its ready position as shown in FIGURES 1 to 3, the finger of one hand is used to depress the button **43** to its lower position, as shown by dotted lines in FIGURE 3, whereupon the cylinder stop forward end **35** is lowered and temporarily retained out of engagement with any cylinder detent **36**, the pivotal movement of the cylinder stop **20** being against the bias of its spring **40**. The fingers of the other hand are then employed to manually rotate the cylinder **13** as desired, after which the button **43** is released to again permit the normal engagement of the cylinder stop end **35** with one of the cylinder detents **36**.

As previously mentioned, the pistol **10** may have a different type of firing action mechanism such as, for example, the standard Smith & Wesson double or single action firing mechanism. Although not illustrated, the Smith & Wesson mechanism also includes a spring biased and depressible cylinder stop lever but which is pivotally and slidably mounted on the gun frame at a location forward of the trigger so that it is first depressed and then released, during a firing actuation of the mechanism, by a sear on the forward end of the trigger. A cylinder-stop release button can be attached to the cylinder stop of such mechanism in manner similar to that herein described in connection with the standard Colt mechanism, although the elongated frame slot, through which the button will project, may be disposed at an angle to the vertical, rather than vertical, as may be required to permit the normal slidable movement of the cylinder stop in forward direction as it disengages a cylinder detent. Such modifications to suit particular firearms will be apparent to those having skill in the art.

Referring again to FIGURES 1 and 3, because of the upward movement of the hand **17** and the consequent chamber indexing movement of the cylinder **13** during either single-action or double-action actuation of the mechanism **14** when cocking and firing the pistol **10** as previously described, it will be noted that the chamber **31** containing the cartridge next desired to be fired should be manually indexed to the station next away from its alignment with the barrel so that it will be finally indexed into barrel alignment commensurate with the next firing action movement of the mechanism **14**. In this connection, it is seen that the hand element **17** engages the left hand side of the cylinder ratchet as indicated in FIGURE 3, so that the cylinder **13** rotates in clockwise direction as seen in that figure during a firing actuation movement of the mechanism **14**. Moreover, the cylinder detents **36** are located on the surface of cylinder **13** adjacent the respective cartridge chambers **31**. Thus, the correct manually indexed position of that cartridge chamber which contains the cartridge **33** next to be fired is the position D as indicated in FIGURE 3. If the cylinder is loaded with cartridges having different types of loads, identification of the type of cartridge which has been previously inserted in the cartridge chamber which has been manually indexed to position D is facilitated by the placement of descriptive wording or other indicia **48** on the cylinder **13** adjacent the respective cartridge chambers **31**. Preferably, the indicia **48** is printed on pressure-sensitive adhesive tape or the like to facilitate its removal and replacement by other indicia, as desired. It will be noted that the indicia appears in upright position at position D, but appears inverted on the opposite side of the pistol **10**, which avoids the possibility of error regarding the type of cartridge next to be fired.

FIGURES 6 through 8 respectively illustrate only three of the variety of types of loads which the cartridges **33** may contain. FIGURE 6 illustrates a cartridge **33***a* containing a load of bird shot **49** packed in usual manner, the load of gun powder being indicated by reference numeral **50**, and conventional wadding being indicated by reference numeral **51**. FIGURE 7 illustrates a cartridge **33***b* having a multiple, large ball load **52**. FIGURE 8 shows a cartridge **33***c* having a rifled slug **53** as the load to be fired, its rifling being indicated by numeral **53***a*. In addition, it is contemplated that cartridges **33** may be loaded as a flare which, when fired, will light an otherwise darkened target for about twenty seconds, which is sufficient time for the position and condition of the target to be observed prior to selection of another type of load which will next be fired. For example, the next cartridge **33** in firing sequence may contain a load of tear gas, or standard buck shot, as desired. Alternatively, cartridge **33** may contain blank loads for celebration or sport use, or virtually any other

conceivable type of load. As previously noted, all six cartridges loaded into the pistol **10** may have either the same or a variety of types of loads.

The barrel bore **32** in the pistol of FIGURE 1 has a smooth, parallel-bore portion **32***a* extending the major portion of its length from its breech end as indicated, the bore diameter being that as is conventional in .410 gauge shotguns, and has a rifled parallel-bore portion **32***b* extending the remainder of its length towards its muzzle end. The rifling within the rifled portion **32***b* has conventional standard fluting and pitch. The barrel bore **32** has a bore-constricting choke **32***c* between its smooth bored and rifled portions **32***a*, **32***b*. In the embodiment being described, the overall barrel length is nominally 6"; the length of its rifled portion is nominally 1½"; and the size of its choke **32***c* is that of a standard shotgun, i.e. up to about .040". The rifled and choked portions **32***b* and **32***c* of the barrel are further illustrated in FIGURE 4.

Turning now to the preferred embodiments of the barrel, the barrel **55** as shown in FIGURE 9 has three chokes **56**, **57** and **58** along its interior length, and the barrel **65** as shown in FIGURE 10 has four chokes **66**, **67**, **68** and **69**. The sizes of the chokes are determined by the diameter differences at the respective junctures of the barrel bore portions between them as indicated, the tandem-arranged barrel bore portions each being parallel-bored, and having sequentially smaller respective diameters towards the muzzle end of the barrel. As does the barrel **32** of FIGURE 1, each barrel **55**, **65** has standard pistol weight with reference to wall thickness, etc., and has .410" diameter bore at its breech end, although a larger or smaller bore may be used as aforesaid. Barrels **55**, **65** are therefore interchangeable with barrel **32** in the pistol **10** of FIGURE 1. Although each illustrated barrel **55**, **65** has nominal overall length of 10", its multiple choke and rifling features can be incorporated in standard weight barrels having longer length, or shorter length such as 6" or 8".

The barrel **55** has a smooth, .410" diameter parallel-bore portion **59***a* extending approximately 7¾" of its length from its breech end **55***a*. The remainder of its length is choked in three stages to .350" diameter at its muzzle end **55***b*, the total constriction of .060" being equally divided between the three chokes **56**, **57** and **58**. Thus, the choking at each choke **56–58** is .020", the bore portion **59***b* between chokes **56** and **57**, and the bore portion **59***c* between chokes **57** and **58** each being smooth and parallel-bored. The bore portion **59***d* between choke **58** and the muzzle end **55***b* is parallel-bored and rifled, as at **59***e*, the rifling being of conventional type. The lengths of the bore portions **59***b*, **59***c* and **59***d* are equal, each being ¾".

The barrel **65** is parallel and smooth-bored along each of its bore portions **70***a*, **70***b*, **70***c* and **70***d* extending from its breech end **65***a* as shown. Its bore portion **70***e* between choke **69** and its muzzle end **65***b* is parallel-bored and has standard rifling **70***f*. Although a total constriction of .060" is achieved over the same length of 2¼" and is divided equally between chokes as in the barrel **55**, the choking is in four stages of .015" each. Thus, the diameter of the bore portion **70***a* is .410"; that of portion **70***b* is .395"; that of portion **70***c* is .380"; that of portion **70***d* is .365"; and that of portion **70***e* is .350". However, the length of each of the smooth-bored portions **70***b*, **70***c* and **70***d* is ½" whereas the length of the rifled bore portion **70***e* is ¾".

With regard to the length of the rifled bore portion in any of the described barrels, it is believed that where a single choke is employed as in the FIGURE 1 embodiment the rifled portion **32***b* should not be greater than about 3", and is preferably less. However, where multiple chokes are employed such as in the FIGURES 9 and 10 embodiments, the rifled length may be considerably shorter, as is advantageous. It is believed that, in addition to more stable projectile flight due to imparted spin, the shorter rifling at the muzzle end produces a more desirable spread of birdshot, buck shot and multiple large-ball loads such as four or five ball loads. For example, it has been discovered that where the length of the rifling is equal to or longer than the total contiguous length of a multiple large ball load, the balls will fail to spread in a desirable manner. However, where the rifled length is less than the initial length of such load, the balls appear to spread in a desirable, controlled pattern. Thus, the length of the rifled bore portion adjacent the muzzle end of a barrel in accordance with the invention is preferably less than twice the largest barrel bore diameter, such as .750" as compared with .802" in the embodiments of FIGURES 9 and 10, so that even a two-ball load can be accommodated.

It has further been found that, where such multiple large-ball loads (i.e., ball diameter approximates maximum bore diameter) are to be fired, at least two and preferably three or four choke stages should be employed in achieving the total swaging of the balls as they travel through the barrel. Moreover, it appears that the length of each of the barrel portions between the chokes should be such that, for example as illustrated in FIGURE 10, at least two balls **52** of a five ball string will be concurrently within such choked length **70***b*, **70***c*, **70***d*, **70***e* as the load passes through the barrel. In FIGURE 10, the diameter of each of the balls **52** is initially .410" and two such balls will therefore be concurrently within the ½" length of any of the barrel portions **70***b–d* when the load is fired. Multiple choking also appears to have the advantage of narrowing the spread of fine shot.

The choking at the various choke stages may be fairly abrupt, the taper at each illustrated choke **32***c*, **56–58**, or **66–69** being about 45°.

Thus, a firearm has been described which achieves all of the objects of the invention.

What is claimed is:

1. In a pistol, the improvement comprising cartridge chamber means having a length and a diameter for receiving a shotgun-type cartridge, and a pistol barrel having a breech end forward of said cartridge chamber means and a muzzle end, said barrel having a plurality of axially concentric parallel-bore portions extending in tandem relation with each other within the length of said barrel between its said breech and muzzle ends, each said bore portion in the sequence towards said muzzle end being substantially immediately adjacent to its preceding bore portion and having a diameter which is smaller than that of its preceding bore portion whereby a substantially abrupt bore-constricting choke is provided therebetween.

2. In a pistol, the improvement according to claim **1** wherein said plurality of parallel-bore portions comprises a smooth-bore portion extending a major portion of the length of said barrel substantially from its said breech end towards its said muzzle end, and a rifled-bore portion immediately adjacent to said muzzle end, said rifled-bore portion having a length which is less than said length of the cartridge chamber means.

3. In a pistol, the improvement according to claim **2** wherein said length of the rifled-bore portion is less than twice the diameter of said breech end bore portion.

4. In a pistol, the improvement according to claim **1** wherein said plurality of parallel-bore portions comprises a breech end bore portion, a bore portion immediately adjacent to said muzzle end, and at least one intermediate bore portion between said breech end bore portion and said muzzle end bore portion, said breech end bore portion and each said intermediate bore portion being smooth-bored.

5. In a pistol, the improvement according to claim **4** wherein each said intermediate bore portion has a length which is at least equal to the diameter of said breech end bore portion.

6. In a pistol, the improvement according to claim **5** wherein said breech end bore portion extends a major portion of the length of said barrel, and which comprises

a plurality of said intermediate bore portions, said muzzle end bore portion having rifling therein and a length which is less than twice the diameter of said breech end bore portion.

7. In a pistol, the improvement according to claim 6 wherein each of said bore-constricting chokes provides bore constriction substantially equal to that of each other.

8. In a pistol, the improvement comprising frame means, a rotatable cylinder mounted on said frame means and having an annularly disposed plurality of individual cartridge receiving chambers and a corresponding plurality of annularly spaced apart cylinder detent means respectively associated with each said chamber, a pistol barrel having a muzzle end and a breech end mounted on said frame means, said barrel having a plurality of axially concentric parallel-bore portions extending in tandem relation with and being substantially immediately adjacent to each other between said breech and muzzle ends, each said bore portion towards said muzzle end having a diameter which is smaller than that of its preceding bore portion whereby a substantially abrupt bore-constricting choke is provided therebetween, cylinder stop means mounted on and within said frame means for movement into and out of engagement with the respective of said cylinder detent means and being biased into its said engagement with any of said cylinder detent means, means defining a slot opening through said frame means, and means on said cylinder stop means projecting through said slot opening to the exterior of said pistol for manually moving said cylinder stop means against its said bias and out of its said engagement with said cylinder detent means.

9. In a pistol, the improvement according to claim 8 wherein said cylinder has indicia thereon at locations associated with the respective of said cartridge receiving chambers for distinguishing said chambers one from another.

10. A pistol barrel having a breech end and a muzzle end, and a plurality of axially concentric parallel-bore portions extending in tandem relation with and being substantially immediately adjacent to each other between said breech and muzzle ends, each said bore portion in the sequence towards said muzzle end having a diameter which is smaller than that of its preceding bore portion whereby a substantially abrupt bore-constricting choke is provided therebetween, each of said bore-constricting chokes providing bore constriction substantially equal to that of each other, said plurality of parallel-bore portions comprising a rifled bore portion immediately adjacent said muzzle end and a plurality of smooth-bore portions extending between said breech end and said rifled bore portion, that of said smooth-bore portions which is adjacent said breech end having a length which extends the major length of said barrel and a diameter substantially equal to .410", each said smooth-bore portion between said smooth-bore portion adjacent said breech end and said rifled bore portion having a length at least equal to said diameter of said smooth-bore portion adjacent said breech end, said rifled bore portion having a diameter substantially equal to .350" and a length substantially equal to .750".

11. A pistol barrel according to claim 10 having two said smooth-bore portions between said smooth-bore portion immediately adjacent said breech end and said rifled bore portion, the length of each of said two smooth-bore portions being substantially .750".

12. A pistol barrel according to claim 10 having three said smooth-bore portions between said smooth-bore portion immediately adjacent said breech end and said rifled bore portion, the length of each of said three smooth-bore portions being substantially .50".

13. A pistol-length gun barrel having a length not longer than substantially 10" and having a breech end and a muzzle end, and a plurality of axially concentric parallel-bore portions for receiving and conducting a load fired from a shotgun-type cartridge, said bore portions extending in tandem relation with each other within the length of said barrel between its said breech and muzzle ends, each said bore portion in the sequence towards said muzzle end being substantially immediately adjacent to its preceding bore portion and having a diameter which is smaller than that of its preceding bore portion whereby a substantially abrupt bore-constricting choke is provided therebetween, said plurality of parallel-bore portions comprising a breech end bore portion having a length which extends a major portion of the length of said barrel, a bore portion immediately adjacent to said muzzle end, said muzzle end bore portion having rifling therein and a length which is less than twice the diameter of said breech end bore portion, and at least one intermediate bore portion between said breech end bore portion and said muzzle end bore portion, said breech end bore portion and each said intermediate bore portion being smooth-bored, and each said intermediate bore portion having a length which is at least equal to the diameter of said breech end bore portion.

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