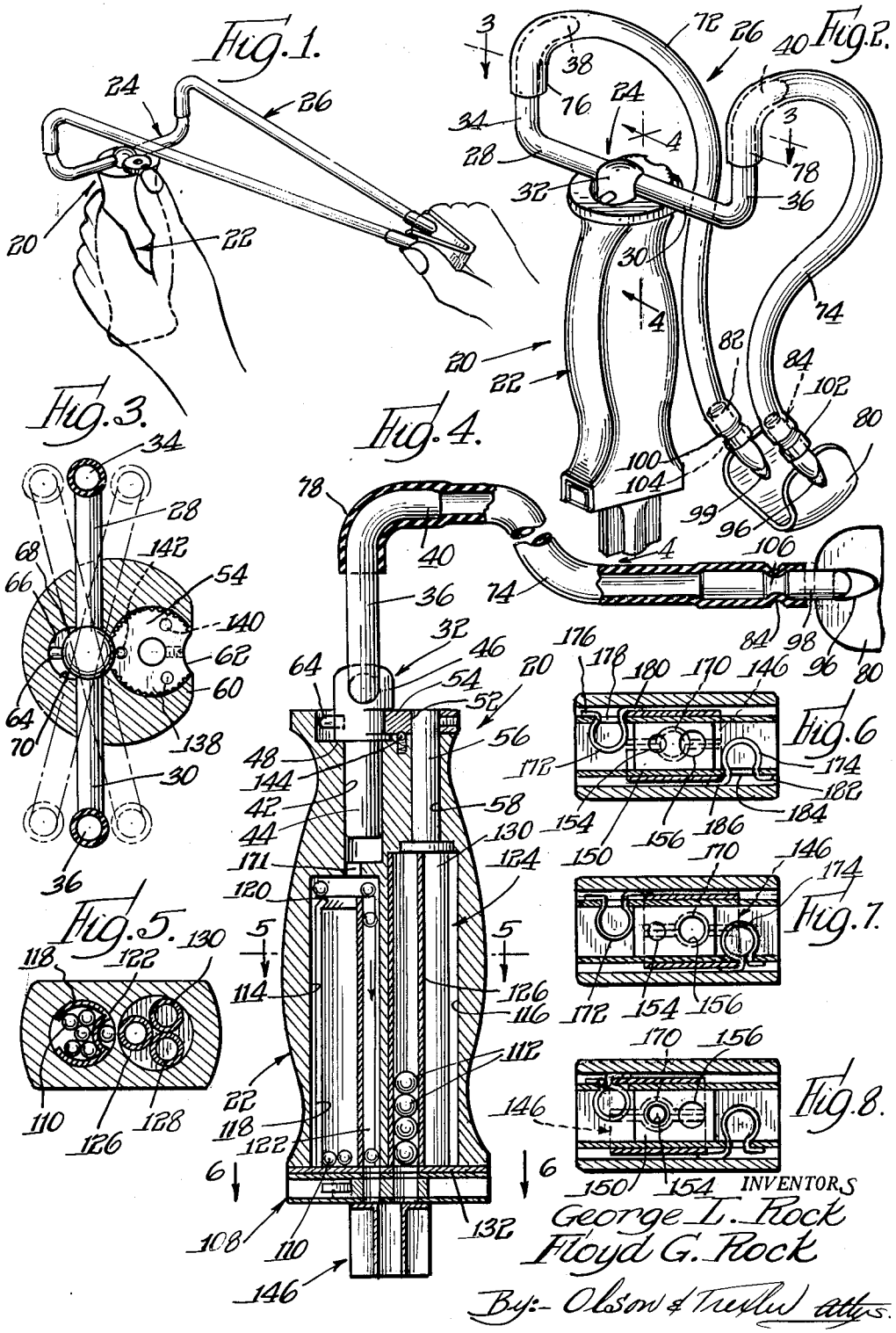
Oct. 9, 1962 G. L. ROCK ETAL 3,057,337

SLING SHOT DEVICE

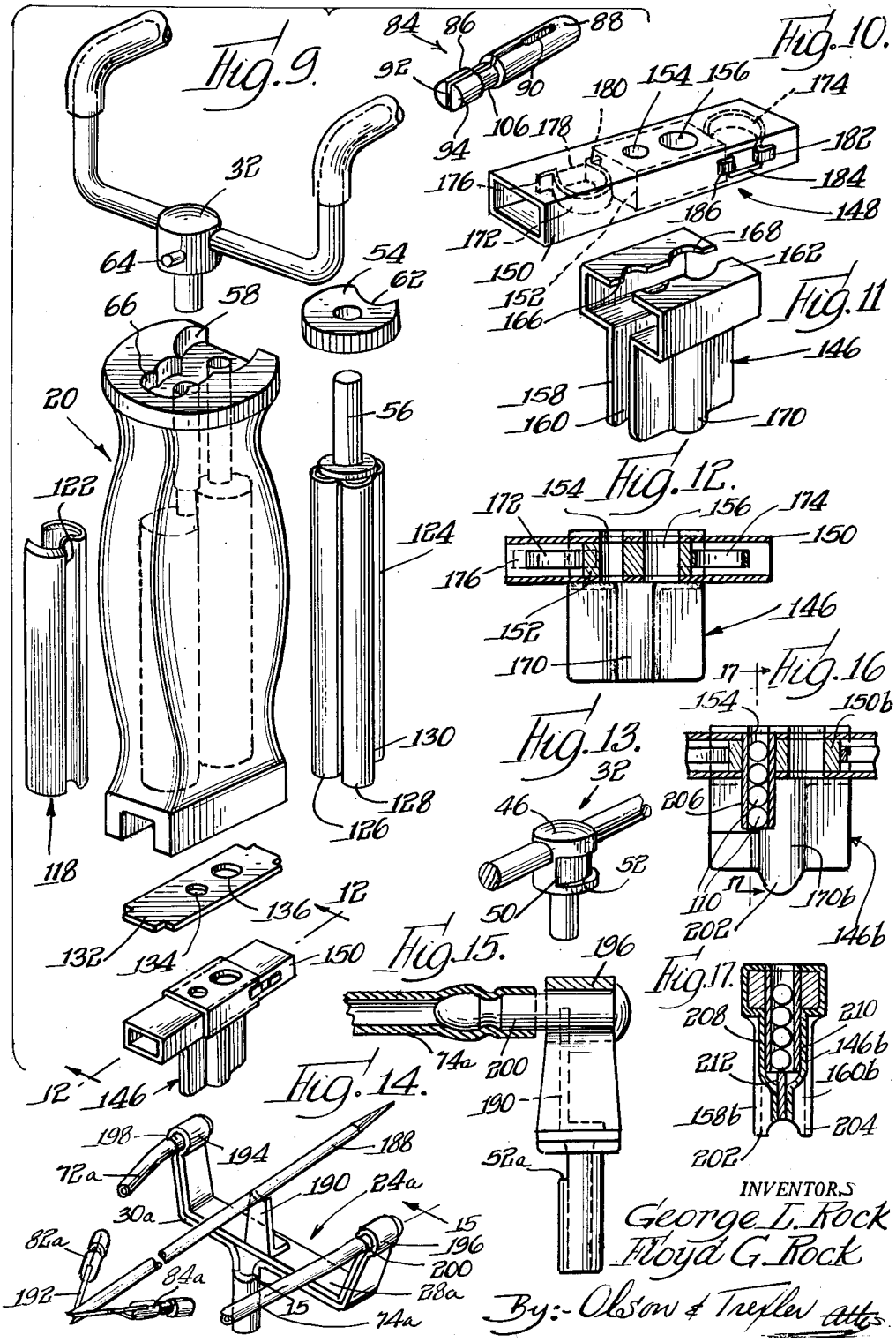
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SLING SHOT DEVICE

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3,057,337

SLING SHOT DEVICE

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The present invention relates to a novel sling shot structure, and more particularly to novel sling shots of the class which may be used for hunting small game.

Sling shots of the general type contemplated herein include elastic sling means having opposite end portions connected with arms of a fork member or the like. When using such devices for hunting small game, it is frequently difficult to pull or stretch the elastic sling so that opposite end portions thereof are tensioned the same amount and this is particularly true when the hunter is attempting to shoot a moving target. When the opposite end portions of the sling are pulled or tensioned unevenly, pellets or other articles being shot will usually be projected along a path of travel diverging from the hunter's line of sight. It will be appreciated that a hunter may frequently wish to use different kinds or sizes of pellets or other articles for shooting different species of game. Thus, one problem with such a hunter is the provision of readily accessible supplies of the different pellets or articles to be shot and the provision of a sling shot structure adapted to project different articles such as pellets or arrows.

An important object of the present invention is to provide a novel sling shot structure which is constructed so as to promote the more accurate projection of an article being shot.

A more specific object of the present invention is to provide a novel sling shot structure having elastic sling means, which structure promotes even pulling or tensioning of opposite end portions of the elastic sling means whereby to facilitate shooting with improved accuracy.

Still another object of the present invention is to provide a novel sling shot structure which may be quickly and easily converted for use for shooting either pellets and the like or arrows.

Still another object of the present invention is to provide a novel sling shot structure of the above described type which is adapted to contain and dispense in a convenient manner a supply of pellets, and the like, of different sizes.

Another specific object of the present invention is to provide a novel sling shot structure which is of rugged and powerful construction for promoting accuracy and an increased working life.

Other objects and advantages of the present invention will become apparent from the following description in the accompanying drawings wherein:

FIG. 1 is a perspective view showing the manner in which the sling shot may be used;

FIG. 2 is an enlarged perspective view showing a sling shot structure incorporating features of the present invention;

FIG. 3 is an enlarged sectional view taken generally along line 3—3 in FIG. 2 and further shows in broken lines the manner in which a portion of the structure is adapted to pivot;

FIG. 4 is an enlarged fragmentary partial sectional view taken generally along line 4—4 in FIG. 2;

FIG. 5 is a sectional view taken along line 5—5 in FIG. 4;

FIG. 6 is a sectional view taken along line 6—6 in FIG. 4;

FIGS. 7 and 8 are similar to FIG. 6 but respectively show the manner in which an element of a dispensing

mechanism may be manipulated in opposite directions for dispensing pellets and the like of different sizes;

FIG. 9 is an exploded perspective view showing a portion of a sling shot structure incorporating the features of the present invention;

FIG. 10 is an enlarged perspective view showing a portion of a dispensing mechanism included in the apparatus of the present invention;

FIG. 11 is a perspective view showing another of the dispensing mechanism;

FIG. 12 is an enlarged sectional view taken generally along line 12—12 in FIG. 9;

FIG. 13 is a fragmentary perspective view showing a portion of a fork member or device included in the apparatus of the present invention;

FIG. 14 is a fragmentary perspective view showing a modified form of the present invention especially suitable for use for shooting arrows and the like;

FIG. 15 is an enlarged partial sectional view taken along line 15—15 in FIG. 14;

FIG. 16 is similar to FIG. 12 but shows a modified form of the dispensing mechanism; and

FIG. 17 is a sectional view taken along line 17—17 in FIG. 16.

Referring now more specifically to the drawings wherein like parts are designated by the same numerals throughout the various figures, a sling shot structure **20** incorporating features of the present invention is shown best in FIGS. 1–4 and 9. The sling shot **20** comprises a hand grip member **22** having an exterior surface contoured generally in the manner shown so as to fit the hand of an operator. A fork member **24** is connected with the hand grip member in the manner described below and extends upwardly therefrom. An elastic sling **26** is connected with the fork member.

The fork member **24** includes a pair of opposite arm portions **28** and **30** which are joined to or integrally formed with a stem element **32**. The arms **28** and **30** initially extend laterally outwardly in opposite directions from the stem element. The arms respectively include outer portions **34** and **36** which extend upwardly from the generally horizontally extending portions thereof and terminal end sections **38** and **40** which are bent so as to extend rearwardly from the upper ends of the upstanding portions **34** and **36**. As will be described more in detail below the elastic sling means is connected with outer end portions of the fork arms.

In accordance with an important feature of the present invention the fork member **24** is connected with the hand grip member **22** for pivotal movement about a vertical axis or at least an axis extending substantially longitudinally of the hand grip member. This feature enables the fork member to pivot from the full line position shown in FIG. 3 to and from either of the broken line positions shown in FIG. 3. Such pivotal movement will take place when the elastic sling means is pulled unevenly in the manner discussed more in detail below for tending to equalize the tension in opposite portions of the elastic sling means and thereby promote greater accuracy in the shot.

In order pivotally to connect the fork member to the hand grip member, a bore **42** is formed in the hand grip member for pivotally receiving a depending shank portion **44** of the stem element **32**. The bore **42** extends from the upper end of the hand grip member and longitudinally of the hand grip member so that, as indicated above, the fork member is adapted to pivot about an axis extending substantially parallel to the longitudinal axis of the hand grip member.

The stem element **32** includes an enlargement **46** which provides an annular downwardly facing shoulder **48** engageable with a bottom surface of a counterbore

in the top of the hand grip member for limiting downward movement of the fork member. As shown best in FIGS. 4 and 13 the enlargement **46** also has an arcuate notch **50** formed at least partially around the side thereof. Thus, an arcuate flange **52** is provided on the enlargement **46** of the stem element **32** for underlying a retaining element **54** mounted on the hand grip member whereby the fork member is secured in assembled relationship with the hand grip member.

The retainer element **54** is, in accordance with the feature of the present invention, formed and mounted so that it may be manipulated for enabling the fork member to be easily assembled with or removed from the hand grip member. More specifically, the retainer element **54** is in the form of a round disc secured to a pin **56** pivotally disposed in a bore **58** formed in the hand grip member parallel to the bore **42** and arranged so that a marginal portion of the retainer element or disc **54** is adapted to project into the notch **50** and over the flange **52**. While a recess **58** is preferably formed in the upper end of the hand grip member, as shown best in FIGS. 3 and 9, for accommodating the disc **54**, the hand grip member is cut away as indicated at **60** to expose an edge of the disc which is preferably knurled for enabling an operator to adjust or turn the disc with his thumb. It is to be noted that the disc **54** is formed with an arcuate notch or recess **62** having a diameter greater than the diameter of the flange **52** on the enlargement of the stem of the fork member so that when the retaining disc **54** is rotated or adjusted so as to align the recess **62** with the flange **52**, the fork member may be removed from or assembled with the hand grip member. If desired, the stem element **32** may be formed so that the flange **52** extends completely therearound so that the fork member could be swiveled 360°. However, in the embodiment shown means is provided with specifically limiting pivotal movement of the fork member between the broken line positions shown in FIG. 3. This means comprises pin **64** secured to and extending forwardly from the enlarged portion **46** of the stem element. The upper end portion of the grip member is provided with another recess **66** for accommodating the pin **64**. Opposite end portions **68** and **70** of the side wall of the recess **66** provide abutments or stops for engagement with the pin **64** to limit pivotal movement of the fork member.

The elastic sling means **26** comprises opposite end portions **72** and **74** which are preferably in the form of elongated tubes of rubber or other suitable tough elastic material. The elastic tubes are provided with an internal diameter which is less than the diameter of the arm portions of the fork member. Thus, the elastic tubes may be quickly and securely connected to the opposite ends of the fork member arms by stretching terminal end sections **76** and **78** of the elastic members over the ends of the arms as shown in FIGS. 2, 4 and 9. It is to be noted that the end sections of the elastic tubes extend around the curved junction between the upstanding and rearwardly sections of the fork member arms and at least partially down the upstanding sections of the arms. When the elastic tubes are stretched in the manner shown in FIG. 1 during use of the device, there is a tendency to reduce the diameter of the tubes for causing the end sections of the tubes to grip the fork arms with increasing aggressiveness. This progressively increasing gripping action during stretching of the tubes in combination with the extension of the tubes around bends in the fork arms serves to eliminate any possibility of the tubes becoming accidentally disconnected from the fork arms.

The sling means **26** also includes a pouch member or projectile engaging and retaining element **80** connected between the elastic tubes. In this embodiment the element **80** is in the form of a relatively wide band of tough flexible material such as leather. Pin like connecting devices **82** and **84** are provided for securing opposite ends of the projectile engaging element or pouch **80** with adjacent ends of the elastic bands.

The connecting devices **82** and **84** are identical so that only the device **84** will be described in detail. As shown in FIGS. 2, 4 and 9 the device **84** comprises an elongated pin like body which is axially split along the line **86** from one end of the body to a point adjacent to but short of the opposite end so as to provide an integrally hinge like junction element **88** between the last mentioned ends of the body. Adjacent the integral hinge portion **88** there is formed a slot **90**. When assembling the device **84** with the article engaging or pouch element **80**, opposite side sections **92** and **94** of the body are spread apart. The device is preferably formed from a tough plastic material having sufficient resiliency to enable the body sections **92** and **94** to be pivoted around the hinge section **88** and spread apart a distance preferably at least slightly greater than the normal width of the slot **90**. Then one of the body sections is inserted through an aperture **96** provided in one end portion of the pouch element **80** until a web section **98** of the pouch element between the aperture and the end margin of the pouch element enters the slot **90**. Then the body sections **92** and **94** are permitted to spring back to their normal abutting positions. As indicated above, the device **82** is identical to the device **84** and therefore it is similarly assembled with the pouch element by inserting one section thereof through an aperture **99** formed in the pouch element.

The devices **82** and **84** have a diameter which is greater than the normal internal diameter of the tubes **72** and **74**. Thus, in order to connect the tubes to the devices **82** and **84**, end portions **100** and **102** are stretched over the devices as shown best in FIGS. 2, 4 and 9. The devices **82** and **84** are respectively provided with annular grooves or reduced diameter portions **104** and **106** into which the end portions of the tubes contract themselves for engagement with rearwardly facing side or abutment walls of the annular grooves. Such engagement in combination with the inherent gripping action of the tubes substantially precludes any possibility of the tubes becoming accidently disengaged from the devices **82** and **84**.

The sling shot structure is provided with a mechanism **108** combined with the hand grip member **22** for storing and dispensing a plurality of projectiles or pellets. Preferably, this mechanism is adapted to supply a plurality of pellets **110** having a first diameter and a quantity of pellets **112** which are greater in diameter. More specifically, a first chamber or bore **114** extends upwardly from the lower end of the hand grip member **22** for containing the small pellets **110**. A second elongated chamber or bore **116** extends upwardly from the lower end of the hand grip member for containing the larger pellets **112**. It will be noted that the bore **116** is larger than and is axially aligned with the above mentioned bore **58** for the purpose described below.

In order to facilitate dispensing of the smaller pellets **110** by minimizing any possibility of the pellets becoming jammed in the supply chamber, a separator device **118** is located within the chamber or bore **114**. As shown in FIGS. 4, 5 and 9 the device **118** is in the form of a sheet metal tube adapted to fit snugly within the bore **114** and having a length similar to but less than the length of the bore. The length of the device **118** is such that its upper margin **120** is spaced from an upper end surface of the bore a distance slightly greater than the diameter of the pellets **110**. It will also be noted that the upper margin **120** of the device **118** is turned inwardly as shown best in FIG. 4 for providing a track for retaining a plurality of the pellets. In addition, one side of the sheet metal tube **118** is deformed inwardly to provide a longitudinally extending passageway **122** having a width similar to but slightly greater than the diameter of the pellets **110**. The passageway **122** is adapted to contain a plurality of the pellets which are arranged one after

the other without being wedged together, and the lower end of the passageway **122** is selectively closed or opened by the means described below for enabling the pellets to be dispensed one at a time.

The majority of the original supply of the pellets **110** is initially contained within the main body of the tube **118**. In order to separate such pellets from each other and direct the pellets into the passageway **122** from which they may be dispensed, it is merely necessary for an operator to turn the hand grip upside down to enable the pellets to roll into the space between the end of the tube **118** and the end of the bore **114** whereupon the hand grip is turned to its normal upright position. Any pellets which have been caught between the inturned end portion **120** of the tube and the end of the bore will then be directed to the passageway **122**.

A device **124** is also provided in the bore **116** for separating the pellets **112** in a manner which facilitates dispensing of the pellets by minimizing any possibility of jamming. In view of the larger size of the pellets **112**, the device **124** preferably is in the form of a plurality of tubes **126**, **128** and **130** which are soldered or otherwise secured together so that they are symmetrically disposed around and parallel to a central axis. Each of the tubes **126–130** has an internal diameter similar to but slightly greater than the diameter of the pellets **112** so that each tube is adapted to contain a series of the pellets.

A plate **132** is disposed across the lower end of the hand grip member as shown in FIGS. 4 and 9. This plate is adapted to close the lower ends of the bores **114** and **116**. However, the plate **132** is provided with a first aperture **134** aligned with the passageway **122** and having a diameter slightly greater than the diameter of the pellets **110** for enabling the pellets to escape from the passageway. In addition, the plate is provided with a second aperture **136** through which the pellets **112** may pass. It will be appreciated that the aperture **136** can be aligned with only one of the tubes **126–130** at a time. Therefore, the device **124** which comprises the tubes **126–130** is rotatably disposed within the bore **116** and is adapted to be turned for selectively aligning the tubes with the aperture **136**. In order to accomplish such adjustment, the device **124** is secured to the lower end of the above mentioned pin **56**. Therefore, the tubes may be turned to the desired position by manually turning the knurled disc **54** which serves the double purpose of retaining the fork member and providing means for adjusting the device **124**.

In order to retain the device **124** in a desired adjusted position, a plurality of rounded seats **138**, **140** and **142** are formed in and equally spaced around the undersurface of the disc **54** as indicated in FIG. 3. In addition, a spring biased ball detent **144** is mounted in the upper end of the hand grip member for cooperative engagement with the ball seats and releasably locking the disc **54**.

The dispensing mechanism **108** also includes a dispensing spout **146** shown in FIGS. 4 and 6–12 and guide and retaining means **148**. The guide and retaining means, in the embodiment shown, comprises an elongated hollow sheet metal member **150** having a generally rectangular cross-section. The member **150** may be secured by pins, screws or any other suitable means within a complementary recess formed at the lower end of the hand grip member so that the member **150** traverses the lower ends of the pellet supply chambers. A solid block **152** is provided within a central portion of the member **150**, and apertures **154** and **156** are provided through the member **150** and the block **152** and are located so that they are aligned with the apertures **134** and **136**.

The dispensing spout **146** may conveniently be formed from complementary sheet metal members **158** and **160** which may be welded or otherwise connected together. The members **158** and **160** combine together to form a box-like portion **162** which is adapted to embrace the member **150** in a manner which enables the spout to slide back and forth on the member **150**. An upper panel of the box-like portion is provided with apertures **166** and **168** which respectively have diameters similar to the diameters of the apertures **154** and **156** and are adapted to be aligned with the apertures **154** and **156** when the dispensing spout member **146** is disposed a midportion of the member **150**. Thus, when the spout member is in its central or centered position, pallets may pass through the apertures **134** and **136** in the plate member **132**, through the apertures **166** and **168** and into the apertures **154** and **156**. However, it will be noted that the lower portions of the complementary members **158** and **160** of the spout combine together to provide a discharge passageway **170** which is centrally located between and therefore not aligned with either of the apertures **166** and **168**. As a result, the pellets will be trapped within the apertures **154** and **156** of the member **150** until the spout member **146** is shifted selectively in opposite directions along the member **150** to align the discharge passageway **170** with either the aperture **154** or the aperture **156**.

The dispensing mechanism is provided with means for normally resiliently retaining the spout member **146** in the above mentioned central location which is shown best in FIGS. 6, 9 and 12. This means comprises first and second structure spring elements **172** and **174** which are disposed in a looped condition substantially within opposite hollow end portions of the guide and support member **150**. The spring element **172** is provided with a first hooked end portion **176** which extends through a slot **178** formed in a side of the member **150** for fixing one end of the spring element with respect to the member **150**. An opposite end portion **180** of the spring element **172** also extends through the slot and is hooked around a margin of the box-like portion of the spout member **146**. The spring element **174** similarly has a first hooked end portion **182** extending through a slot **184** in a side of the member **150** for connecting the spring element to the member **150**. A second hooked end portion **186** of the element **174** also extends through the slot **184** and is hooked around a margin of the spout member oppositely from the spring element **172**.

It will be appreciated that when it is desired to dispense one of the larger pellets **112**, the spout member is manually shifted along the guide and support member **150** from the central position shown in FIG. 6 to the position shown in FIG. 7 at which the dispensing passageway **170** is aligned with the passageway or aperture **156**. This enables a pellet to fall from the passageway **156** and out through the passageway **170**. At the same time, the apertures **166** and **168** in the upper plate like portion of the dispensing spout are shifted out of alignment with the apertures **134** and **136** and the plate member **132** so as to prevent more than one pellet from being dispensed at a time. When the spout member is released, the spring elements automatically cause it to shift back to the central position shown in FIG. 6 so that the further dispensing of pellets is precluded while at the same time another pellet **112** may pass into the aperture **156** for subsequent dispensing. The smaller pellets **110** may be similarly dispensed by manually shifting the spout member from the central position to the position shown in FIG. 8 at which the discharge passageway **170** is aligned with the aperture **154**.

The small pellets may be loaded into the magazine by removing the fork and dropping the pellets into the bore **42** which is connected with the bore **114** by aperture **171**. The larger pellets are loaded through the dispensing spout when the device is held in an inverted position.

FIG. 14 shows a portion of a sling shot structure incorporating a modified form of the present invention as indicated by the application reference numerals with the suffix "*a*" added to elements corresponding to those of the above described structure. This embodiment differs in that the fork member **24***a* and the elastic sling

means **26***a* are particularly adapted for projecting an article such as an arrow **188** rather than the pellet. It will be appreciated that the fork member **24***a* may be readily assembled with the hand grip structure described above in place of the fork member **24**. One difference in the fork member **24***a* is that a seat or guide element **190** is provided between the fork arms **28***a* and **30***a* for guiding and supporting the arrow, and a string **192** which is adapted to engage a notch at the trailing end of the arrow shaft is connected between the elements **84***a* and **82***a* rather than the above mentioned leather pouch.

It is also to be noted that in this embodiment the fork member is formed from sheet metal and is provided with parallel tubular bearing sections **194** and **196** at outer ends of the arms. Pins or short shafts **198** and **200** are respectively rotatably disposed in the bearing sections **194** and **196**, which pins have enlarged head portions for limiting axial movement thereof in a rearward direction. The tubular sling elements **72***a* and **74***a* are stretched over the rearwardly extending end portions of the pins **198** and **200**. With this structure any tendency for the elastic tubes **72***a* and **74***a* to become twisted during use of the device is eliminated since any twist in the elastic tubes will be relieved by rotation of the pins **198** and **200** within their associated bearing sections of the fork member. In many situations this action will eliminate the time consuming and annoying need for taking time to untwist the elastic members after a shot whereby rapid loading and shooting is facilitataed. It is to be understood that the fork member **24***a* may also be made without the arrow guide so that it may be used with sling means adapted for pellets and the like, rather than arrows.

FIGS. 16 and 17 show a slightly modified dispensing mechanism which is similar to the structure described above as indicated by the application of identical reference numerals with the suffix "*b*" added to corresponding elements. This mechanism differs from that described above in that the members **158***b* and **160***b* of the dispensing spout are provided with lip portions **202** and **204** at the lower end of the dispensing passageway **170***b* and projecting below adjacent lower edges of the spout members. These lips provide a clearance for a pellet or pellets for facilitating entry into the pouch of a sling. In other words, the extended lips, in effect, create a pocket in the pouch into which the pellets may fall without obstruction. The lips will prevent an operator from accidentally squeezing and closing the space within the pouch where the shot is to be received until after the shot has been deposited therein.

It will also be noted that the modified dispensing mechanism is adapted to deposit a plurality of the smaller sized shots at one time. Thus, the mechanism is provided with a tube **206** secured to and depending from the block **152***b* and providing a continuation of the aperture **154***b* for receiving and retaining a plurality of the shot or pellets **110***b*. At the same time portions **208** and **210** of the dispensing spout members **158***b* and **160***b* are formed outwardly to provide clearance for the tube **206** and also to provide a bottom surface **212** for closing the lower end of the tube until the spout member has been shifted so as to align the passageway **170***b* with the tube.

While the preferred embodiments of the present invention have been shown and described herein, it is obvious that many structural details may be changed without departing from the spirit and scope of the appended claims.

The invention is claimed as follows:

1. A structure of the type described comprising: hand grip means; fork means mounted on said hand grip means for pivotal movement relative to the hand grip means about an axis extending generally longitudinally of the hand grip means; said fork means including a radially projecting flange; quick release means detachably securing said fork means in assembled relationship with said hand grip means; said quick release means including a retaining member pivotally secured to said hand grip means for overlying said flange, said retaining member having a relieved peripheral portion for enabling the retaining member to be disengaged from the flange upon pivotal movement of the retaining member to a predetermined position; and elastic sling means having opposite end portions connected to said fork means, said fork means pivoting in response to any uneven pull by an operator on said opposite end portions of the elastic sling means for tending to equalize the pull on said opposite end portions.

2. A structure, as defined in claim 1, which includes detent means for releasably securing said retaining member in a desired adjusted position.

3. A sling shot structure of the type described comprising hand grip means adapted to be held in a generally upright position, fork means connected to said hand grip means, first chamber means in and extending from a lower end of said hand grip means for containing a first supply of pellets, second chamber means in and extending from a lower end of said hand grip means for containing a second supply of pellets, means connected with and traversing a lower end of said hand grip means and substantially closing lower ends of said chambers and having first and second apertures therethrough respectively registering with said first and second chambers for permitting passage of pellets one at a time from said first and second chambers, said apertures being laterally spaced apart, a dispensing member mounted for manual movement along said last mentioned means and including portions for closing lower ends of said apertures when said dispensing member is at a predetermined first position, said dispensing member including a dispensing passageway extending between said portions and selectively alignable with said first and second mentioned apertures upon selective movement of the dispensing member along said last named means in opposite directions, and elastic sling means having opposite end portions connected to said fork means.

4. A structure, as defined in claim 3, wherein said first and second apertures are of different sizes for respectively accommodating pellets.

5. A sling shot structure of the type described comprising hand grip means adapted to be held in a generally upright position, fork means joined with and extending from said hand grip means, elastic sling means having opposite end portions connected with said fork means, first chamber means in and extending upwardly from a lower end of said hand grip means for containing a first supply of pellets, second chamber means in and extending upwardly from a lower end of said hand grip means for containing a second supply of pellets, additional means assembled with said hand grip means and traversing said lower end thereof and substantially closing lower ends of said first and second chamber means, said additional means having first and second apertures therethrough respectively registering with said first and second chamber means for permitting the passage of pellets from said first and second chamber means, said apertures being laterally spaced apart, and a dispensing member having a discharge passageway therethrough and being slidably disposed relative to said last mentioned means for selectively aligning said discharge passageway with said first and second apertures and also for positioning said passageway out of alignment with both of said apertures, said discharge member including portions for closing said apertures when said passageway is out of alignment with the apertures.

6. A structure, as defined in claim 5, which includes a device in said first mentioned chamber means for separating the pellets for passage one at a time through said first mentioned aperture, said separating means comprising an elongated passageway aligned with and extending

upwardly from said first aperture to a point adjacent but spaced from an upper end of said chamber means, said last mentioned passageway having a diameter similar to but slightly greater than the diameter of pellets to be stored within said first chamber means and the upper end of said last mentioned passageway being spaced from said upper end of the first chamber means a distance at least as great as said diameter, said last mentioned passageway being adapted to receive a series of the pellets when an operator turns the hand grip means first upside down and then right side up.

7. A structure, as defined in claim 6, wherein said separator means includes means providing an annular track adjacent the upper end of said first chamber means for catching a plurality of pellets when the hand grip means is turned upside down and directing the pellets to said last mentioned passageway when the hand grip means is again turned right side up.

8. A structure, as defined in claim 5, which includes means disposed in said second chamber means for separating pellets therein for facilitating passage of the pellets through said second aperture, said separating means comprising a plurality of elongated tubes each adapted to contain a series of pellets, said tubes being secured together symmetrically around a central axis, and means connected with an upper end of said tubes and extending to an upper end portion of said hand grip means for enabling the tubes to be manually rotated within said second chamber means for selectively aligning the tubes with said second aperture.

9. A structure, as defined in claim 8, wherein said means for rotating said tubes comprises a manually turnable disc at the upper end of said hand grip means, said fork means being detachably connected with said hand grip means and including a flange portion projecting beneath a margin of said disc for retaining the fork means in similar relationship with the hand grip means, said disc having a relieved peripheral section which may be aligned with said flange upon rotation of the disc for releasing the flange and permitting the fork means to be removed.

10. A structure, as defined in claim 3, wherein said means traversing a lower end of said hand grip means and having first and second apertures therethrough includes elongated tube means defining said first aperture and having a length sufficient for receiving and retaining a plurality of pellets from said first supply of pellets, said plurality of pellets being dispensed substantially simultaneously when said dispensing member is shifted for aligning said dispensing passageway with said tube means.

11. A structure of the type described comprising hand grip means adapted to be held in a generally upright positon, fork means joined with said hand grip means and including spaced apart arm portions, said fork means also including first and second bearing means on outer ends of said arm portions, first and second elements rotatably supported in said first and second bearing means and fixed against axial displacement in a direction extending rearwardly from said fork means, and sling means including opposite elastic end portions respectively connected to said first and second elements, substantially any tendency of said opposite end portions of the sling means to become twisted during use of the structure being relieved by rotation of said elements within their respective bearing means.

12. A structure of the type described comprising: hand grip means; fork means connected to said hand grip means and having oppositely extending arms; sling means including opposite elastic tubular end portions connected to said fork means at said arms, said elastic tubular portions having normal internal diameters lesser than the diameters of said arms, said sling means further including an intermediate projectile engaging element connected between said elastic tubular end portions; and connecting devices between said tubular end portions and opposite ends of said intermediate projectile engaging element, each of said connecting devices comprising elongated complementary body sections having a combined diameter greater than the internal diameter of an associated tubular end portion and being integrally joined at one pair of adjacent ends, said projectile engaging element having a portion extending between said body sections and being retained by the integral junction between said adjacent ends, opposite end portions of said body section being inserted into an associated tubular end portion.

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