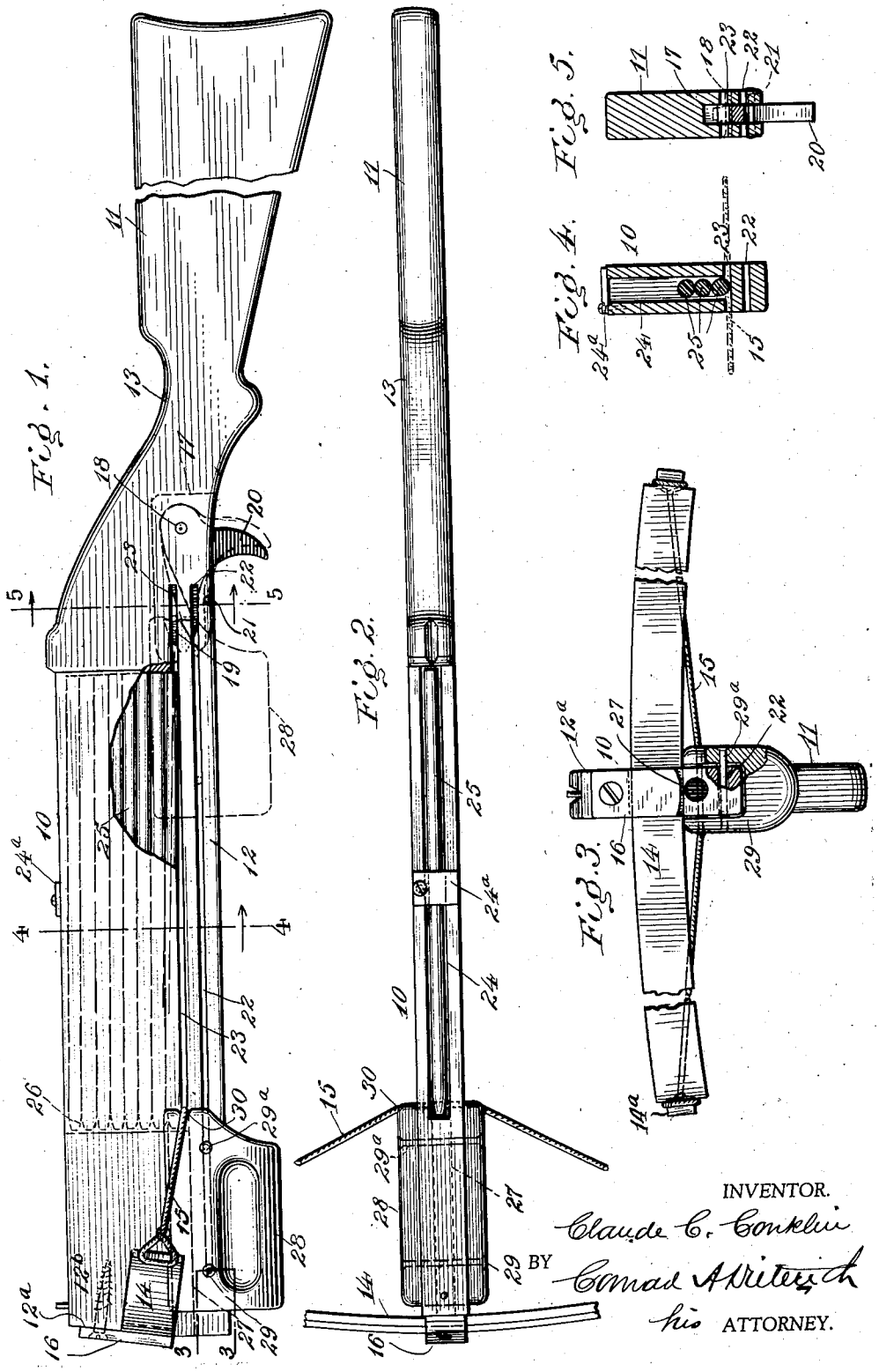
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TOY MAGAZINE GUN

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TOY MAGAZINE GUN

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9 Claims. (Cl. 273—107.5)

My invention relates to improvements in toy guns, and the same has for its object to provide a simple, inexpensive and effective construction for projecting darts, arrows or analogous projectiles.

Further, said invention has for its object to provide a toy gun of the bow type having a magazine for holding a considerable number of projectiles from which the same may be automatically, successively withdrawn for firing.

Further, said invention has for its object to provide a toy bow gun having means for conveniently retracting the bow-string, and engaging the same with a suitable trigger mechanism whereby the bow string may be released to project an arrow or dart from the gun.

Further, said invention has for its object to provide a toy bow gun having means for retracting the bow string, which also serves to move a trigger mechanism into operative position to engage the retracted bow string and hold the same to its retracted position until the gun is to be fired.

Further, said invention has for its object to provide a toy magazine bow gun which may be readily dismounted or taken apart to permit of the same being packed within small compass for storage or shipment.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends my invention consists in the novel features of construction and in the novel combination, connection and arrangement of parts hereinafter more fully described and then pointed out in the claims.

In the accompanying drawing—

Figure 1 is a side elevation, partly broken away, showing one form of toy gun constructed according to, and embodying my said invention;

Fig. 2 is a plan or top view thereof;

Fig. 3 is an end view partly in section on about the line 3—3 of Fig. 1;

Fig. 4 is a transverse section on the line 4—4 of Fig. 1, and

Fig. 5 is a similar section on the line 5—5 of Fig. 1.

In said drawing 10 designates the gun as a whole, comprising a substantially flat stock including a butt 11, an extended portion 12, and a small intermediate portion or grip 13. The extreme forward end of the extended portion 12 is slightly beveled at 12^a and provided with a transverse recess 12^b to receive a removable, flat bow 14 made of wood or other suitable flexible material and provided at its ends with reduced portions 14^a to facilitate the securement of the ends of a bow string 15 thereto. The bow 14 which is formed separately from the gun stock 10 fits snugly into the recess 12^b and is held in position therein by a pivoted latch 16.

In the under side of the grip portion 13 is provided a recess 17 within which is disposed a trigger mechanism which is pivotally supported upon a transverse pin 18. The trigger mechanism includes a detent 19 and a trigger 20. 21 denotes a pin extending transversely through the recess 17 below the detent 19 and serving to limit the downward movement of said detent, and to hold the same duly positioned to receive the bow string 15.

The extended portion 12 of the stock is provided near its lower edge between the grip portion 13 and the muzzle end with two parallel longitudinal slots 22, 23 arranged one above the other, and having their rear ends communicating with the trigger recess 17. Above the upper slot 23 the extended portion 12 is provided with a vertical, longitudinal recess 24 whose lower edge coincides with the lower edge of said upper slot 23. The recess 24 constitutes a magazine to receive a plurality of darts or arrows 25, in the present instance eight darts 25 are shown therein which are cylindrical in form and substantially coextensive in length with said magazine, and have their forward ends slightly tapered or rounded at 26. The top of the magazine 24 may be provided with one or more pivoted lugs 24^a to retain the darts 25 in place within the magazine. The forward end of the extended portion 12, located between the forward end of the magazine 24 and the end of the gun, is solid, and is provided in its lower portion with a horizontal bore 27 constituting the barrel whose lower edge is in alignment with the lower edge of the slot 23 which also constitutes the floor of the magazine recess 24.

28 denotes a reciprocatable block or "pump" having its upper edge longitudinally recessed to receive the lower slotted edge of the extended portion 12 of the stock and held in sliding engagement therewith by two transverse pins 29, 29^a which extend through the recessed upper portion of the side walls of said block 28 and through the lower slot 22 in the extended portion 12 of the stock. The rear ends of the side walls of the block 28 are provided adjacent to their upper edges with recesses or notches 30 which register with the upper longitudinal slot 23, and engage with the bow string 15 which has its intermediate portion normally extending through the upper longitudinal slot 23.

The operation of the gun is as follows. After the gun has been duly assembled, and the darts 25 inserted into the magazine recess 24, the operator grasps the grip portion 13 in one hand, and with the other grasps the block 28, and slides the same rearwardly towards the butt 11, and in so doing draws the bow string 15 rearwardly and below the lowermost dart 25. As soon as the guide pin 29a of the block 28 engages the under side of the detent 19 it will raise the same slightly and cause it to assume about the position illustrated at Fig. 1. As the rearward movement of the block 28 is continued it will force the intermediate portion of the bow string 15, extending through the slot 23, rearward and cause the same to pass over the nose of the detent 19, and then engage with the vertical rear edge thereof. The block 28 is then moved forward again to its initial position, as shown in full lines at Fig. 1, thus leaving the detent 19 held to its raised position by the tension of the bow string, and the trigger 20 "cocked" for firing. As soon as the trigger 20 is pulled the intermediate portion of the bow string will be released of its engagement therewith and permitted to engage the rear end of the lowermost dart 25 in the magazine recess 24 and force the same forward and through the bore 27 in the front end of the extended portion of the stock and be discharged from the piece. As the dart is being forced out of the magazine recess the intermediate portion of the bow string will again engage with the recess or notches in the rear end of the block 28 and at the same time the next dart in the magazine recess immediately above the one fired will take its place ready to be engaged by the bow string 15 after the same has been again put under tension by the retracting of the block 28.

Having thus described my said invention, what I claim and desire to secure by Letters Patent is:

1. A toy magazine gun comprising a stock, a barrel, a flexible bow, a bow-string, a magazine communicating with said barrel, a detent mechanism in the path of said bow-string and a movable member separate from said bow-string slidably disposed upon said stock and adapted to engage with said bow-string whereby to strain said bow and to move said bow-string into operative engagement with said detent mechanism, substantially as specified.

2. A toy magazine gun comprising a stock, a barrel, a releasable trigger, a magazine communicating with said barrel, a flexible bow, means for detachably securing said bow to said stock, a bow-string secured at its ends to said bow and in position to be engaged by said trigger, and a movable member slidable on said stock and engageable with said bow-string whereby to flex said bow and carry said bow-string into operative engagement with said releasable trigger, substantially as specified.

3. A toy magazine gun comprising a stock, a barrel, a releasable trigger, a magazine communicating with said barrel, a flexible bow, means for securing said bow to said stock, a bow-string secured at its ends to said bow and engageable with said trigger, a movable member separate from said bow-string slidably disposed upon said stock and adapted to engage with said bow-string whereby to flex said bow and carry said bow string into engagement with said releasable trigger, and means arranged partly on said stock and partly on said movable member for guiding said movable member, substantially as specified.

4. A toy magazine gun comprising a stock, a barrel, a releasable trigger, a magazine communicating with said barrel, a flexible bow, means for securing said bow to said stock, a bow-string secured at its ends to said bow and having its intermediate portion disposed to be engaged by said trigger, a movable member slidable on said stock and engaging said string whereby to flex said bow and carry the intermediate portion of said bow-string into engagement with said releasable trigger, means for guiding the intermediate portion of said bow string, and means for guiding said reciprocatable member, substantially as specified.

5. A toy magazine gun comprising a stock, a barrel, releasable trigger, a longitudinal magazine above and communicating with said barrel, a releasable trigger, a flexible bow secured to the end of said stock, a bow-string secured at its ends to said bow and having its intermediate portion disposed in the path of said trigger, a longitudinal slot in said stock below said magazine through which said bow string extends, a second longitudinal slot in said stock below and parallel with said first-named slot, and a reciprocatable member guided in said second-named slot and engageable with said bow-string whereby to retract the intermediate portion of said bow string and carry the same into operative engagement with said releasable trigger and maintain said bow flexed, substantially as specified.

6. A toy magazine gun comprising a stock, a barrel, a releasable trigger, a magazine communicating with said barrel, a detachable flexible bow, a locking device for securing said bow to the end of said stock, a bow-string secured at its ends to said bow and positioned to be engaged by said trigger, and a reciprocatable member slidable on said stock and engaging said string whereby to flex said bow and to carry said bow-string into engagement with said releasable trigger and maintain said bow flexed, substantially as specified.

7. A toy magazine gun comprising a stock, a barrel, a detent, a magazine communicating with said barrel, a flexible bow secured to the end of said barrel, a bow-string secured at its ends to said bow and positioned to be engaged by said detent, a member separate from said bow-string slidingly mounted upon said stock and adapted to engage with said bow-string whereby to strain said bow and carry said bow-string into engagement with said detent, and upon release of said detent to cause said bow-string to engage a projectile and propel the same through said magazine and barrel, substantially as specified.

8. A toy magazine gun comprising a stock, a barrel, a magazine disposed above and communicating with said barrel adapted to receive a plurality of superposed projectiles, a slot in said stock communicating with said magazine, a second slot in said stock below said first-named slot, a detent in said stock, adjacent the rear ends of said slots, a flexible bow secured to the forward end of said stock, a bow string secured to said bow and extending through said first-named slot and engageable with said detent, and a member mounted on said stock and slidably engaging said second-named slot and engaging said bow string whereby to move the same rearwardly and into engagement with said detent and to strain said bow and hold said bow-string under tension; said bow string, upon being released from said detent, being adapted to engage with the rear end of the lowermost projectile in said magazine and

propel the same through said magazine and barrel, substantially as specified.

9. A toy magazine gun comprising a stock, a barrel, a vertical, longitudinal recess in said stock constituting a magazine above and communicating with said barrel and adapted to receive a plurality of longitudinal projectiles, a longitudinal slot in said stock communicating with the floor of said magazine, a second longitudinal slot in said stock below said first-named slot, a trigger in the small of said stock, a detachable flexible bow at the forward end of said stock, a locking device for securing said bow to said stock, a bow-string extending through said first-named slot and engageable with said trigger and secured to the ends of said bow, and a reciprocatable member mounted on said stock in sliding engagement with said second-named slot and engaging the intermediate portion of said bow-string whereby to carry the same rearwardly and into engagement with trigger and to strain said bow and hold said bow-string under tension; said bow string, upon being released by said trigger, being adapted to engage with the rear end of the lowermost of a vertical stack of projectiles in said magazine and propel the same through said magazine and barrel, substantially as specified.

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