No. 785,050. PATENTED MAR. 14, 1905.

S. L. SAUNDERS.

BOW GUN.

APPLICATION FILED NOV. 16, 1903.

Fig. 1.

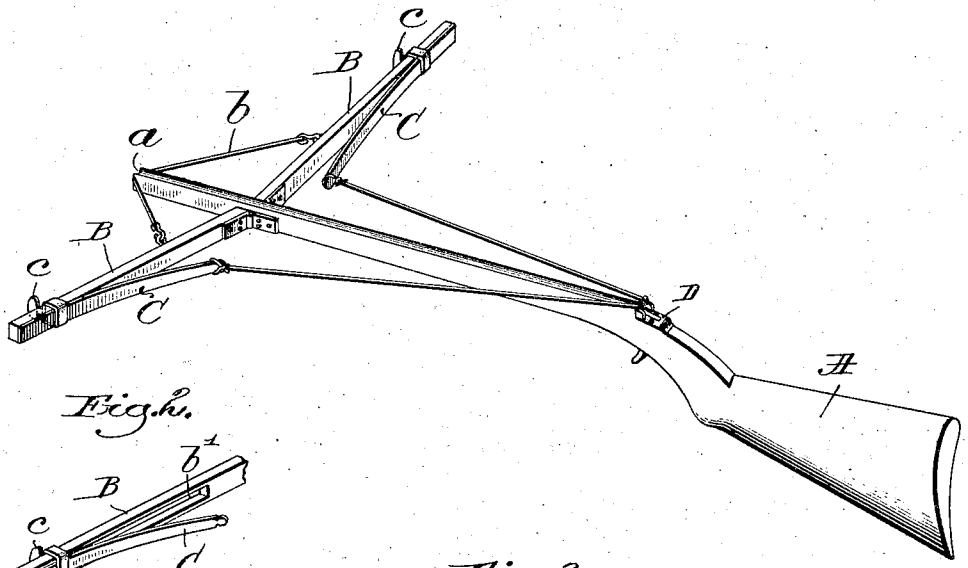


Fig. 2.

Fig. 3.

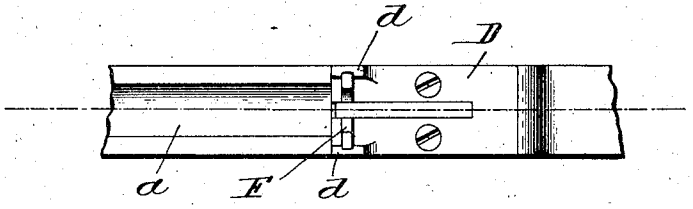


Fig. 4.

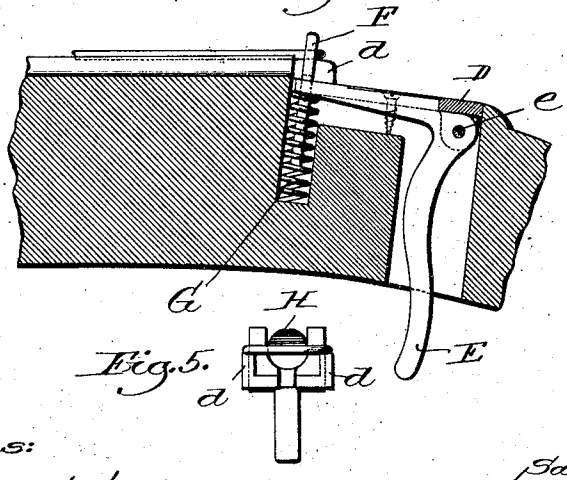


Fig. 5.

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UNITED STATES PATENT OFFICE.

SAMUEL L. SAUNDERS, OF WINTHROP, MASSACHUSETTS.

BOW-GUN.

SPECIFICATION forming part of Letters Patent No. 785,050, dated March 14, 1905.

Application filed November 16, 1903. Serial No. 181,327.

To all whom it may concern:

Be it known that I, SAMUEL L. SAUNDERS, a citizen of the United States, residing at Winthrop, county of Suffolk, State of Massachusetts, have invented an Improvement in Bow-Guns, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to a bow-gun adapted for use in the projecting of arrows or other projectiles for any purpose, and also more especially adapted for a toy or for use in a parlor game.

The invention resides in several features, including a construction whereby the bow-gun may be folded into small compass for packing or carrying; a construction of bow whereby a direct pull is obtained against the arrow and whereby pull on either or both parts of the string may be increased or diminished at pleasure; a construction whereby the bow when snapped makes a loud noise or report; a construction whereby the bowstring during the snapping of the trigger is retained in position against the head of the arrow or projectile. Each of these features will be more fully pointed out, and described in the claims which define the invention.

Figure 1 is view in perspective of a bow-gun embodying the features of my invention. Fig. 2 is a perspective view illustrating a modification of a portion of the bow-gun. Fig. 3 is a top plan of the trigger-section of the gun. Fig. 4 is an elevation, partially in longitudinal vertical section, of the trigger portion of the gun. Fig. 5 is a view in end elevation showing a portion of the trigger mechanism.

The bow-gun comprises a stock A of usual gun form provided on the upper barrel portion with a groove *a* for guiding the arrow or other projectile. Two arms B B are pivotally secured to the barrel of the gun near its end and in such a manner that they may be folded into position parallel with the barrel. These arms are maintained in extended position by a cord or wire *b*, which is detachably connected, as by hooks, with the arms B B and which extends over or through the extreme end of the barrel of the gun.

The bows are formed of two resilient pieces of wood or metal C, fastened at their outer ends to the arms B and having their inner ends connected by the bowstring. It will be seen that this is entirely different from the ordinary archer's bow construction in that the bow is formed in two separate pieces and the string is connected to the inner ends of the pieces. This allows the string to be nearly parallel to the barrel of the gun, giving a direct pull upon the projectile.

Adjustable clamping means, such as shown at *c*, are provided for clamping the bows C to the arms B. By these means the strength of the bows C may be separately varied as desired. If it is found that one bow is exerting a stronger pull on the string than the other, the strength of the pull may be equalized by adjusting the clamping means *c*. Also if it is desired to increase or diminish the entire pull upon the string the two clamping means *c* may be adjusted as desired. Thus the power of the bow may be practically varied or adjusted at the desire of the shooter.

When this bow-gun is used as a toy or as a part of a parlor game, it is often desirable and a source of amusement and delight to the young that it should imitate as far as possible the report caused by a firearm. To secure this end, the bows C are arranged, as shown in Fig. 1, to come into contact with the arms B when the bowstring is released. The releasing of the bowstring thus causes a sharp and loud report even when the strength of the bow is diminished to such an extent by adjustment of the clamping means *c* as to allow its use in the house as a part of a game or toy. When, however, it is desired that the bow-gun shall be used for shooting and there is no desire to secure the imitation of a firearm by the causing of a report, the arms B B may be constructed, as shown in Fig. 2, with a slot *b'* therethrough to allow of the passage of the bows C when the bowstring is released.

The trigger construction, which is shown more in detail in Figs. 3, 4, and 5, consists of a plate D, fastened by screws or other means

to the top of the stock. The trigger proper, E, is pivoted at *e* to the plate D. The end of the plate D is upturned or has two upward projections *d*, and slidingly mounted in the end of the plate D between the projections *d* is the bow-pin F. This bow-pin is somewhat Y shape, so as to present a lower arm surrounded by a spring G, located in the stock of the gun, which serves normally to elevate the bow-pin and so as to present two upwardly-projecting arms between which the end of the trigger rests and serves to depress the bow-pin and around which the bowstring passes. This construction allows the arrow or other projectile, the end of which is shown in Fig. 5 at H, to rest between the upwardly-projecting arms of the bow-pin directly against the bowstring, which bowstring in turn rests upon the projections *d d* of the plate D. It will thus be seen that when the trigger is pulled the bow-pin is depressed against the action of the spring G and in its depression is guided in a right line, so that the bowstring remains immovable upon the projections *d d* of the plate D and against the head of the arrow or other projectile H until the bow-pin is entirely depressed, when the string is snapped and the arrow or other projectile shot.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bow-gun comprising arms pivotally connected to opposite sides of the gun-barrel, means for maintaining said arms in extended position, bows attached at one end to said arms, a bowstring connecting the unattached ends of said bows, and a trigger mechanism.

2. A bow-gun comprising arms pivotally connected to opposite sides of the gun-barrel, means for maintaining said arms in extended position, bows attached at their outer ends to said arms, a bowstring connecting said bows, and a trigger mechanism.

3. A bow-gun comprising arms pivotally connected to opposite sides of the gun-barrel, means for maintaining said arms in extended position, bows adjustably attached at their outer ends to said arms, a bowstring connecting said bows, and a trigger mechanism.

4. A bow-gun comprising arms extending transversely from opposite sides of the gun-barrel, bows attached at one end to said arms and arranged to come into contact at their opposite ends with said arms when sprung, whereby a sharp report is made, a bowstring connecting the unattached ends of said bows, and a trigger mechanism.

5. A bow-gun comprising arms extending transversely from opposite sides of the gun-barrel, bows attached at their outer ends to the outer ends of said arms and arranged to come into contact at their opposite ends with said arms when sprung, whereby a sharp report is made, a bowstring connecting the unattached ends of said bows, and a trigger mechanism.

6. A bow-gun comprising arms extending transversely from opposite sides of the gun-barrel, bows attached to said arms, means for varying the effective length of each bow, whereby the strength of each bow is varied, a bowstring connecting the unattached ends of said bows, and a trigger mechanism.

7. A bow-gun comprising a barrel provided with a groove to contain and guide a projectile, a bowstring, means for pulling the bowstring to hurl the projectile, an upwardly-spring-pressed Y-shaped bow-pin adapted when elevated to hold the bowstring across the arms of the Y with the projectile resting therebetween, a trigger for depressing the bow-pin, projections on the gun-barrel adjacent said bow-pin to support and maintain the position of the bowstring at a fixed distance from the bottom of the barrel-groove during the depression of the bow-pin.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL L. SAUNDERS.

Witnesses:

NATHAN HEARD,

MABEL PARTELOW.