H. H. BAY & J. H. BRANTINGHAM.

TOY BLOW GUN.

APPLICATION FILED FEB. 18, 1918.

1,290,050. Patented Jan. 7, 1919.

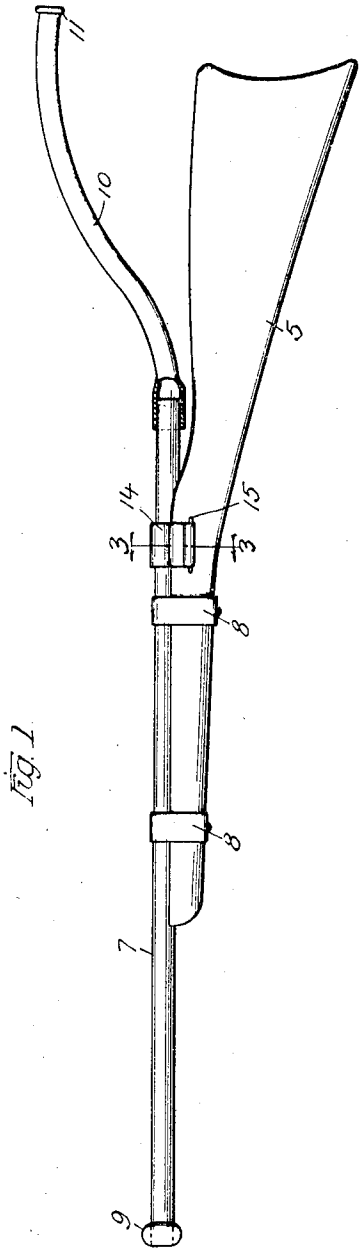


Fig. 1.

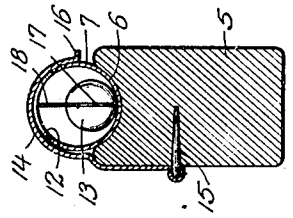


Fig. 3.

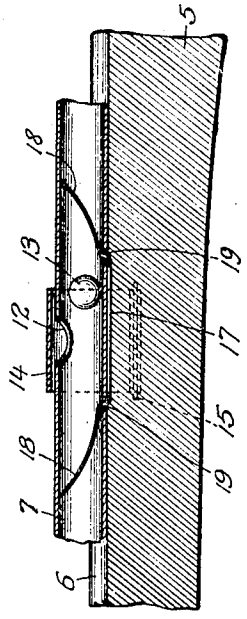


Fig. 2.

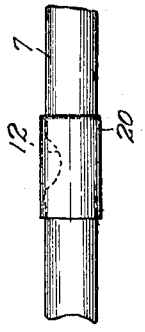


Fig. 4.

Witnesses:
Robert H. Weir
Arthur W. Carlson

Inventors
Hiram H. Bay and
J. Harry Brantingham
Benjamin, Roodhouse & Lundy
Attys.

UNITED STATES PATENT OFFICE.

HIRAM H. BAY AND J HARRY BRANTINGHAM, OF CHICAGO, ILLINOIS.

TOY BLOW-GUN.

1,290,050. Specification of Letters Patent. Patented Jan. 7, 1919.

Application filed February 18, 1918. Serial No. 217,832.

To all whom it may concern:

Be it known that we, HIRAM H. BAY and J HARRY BRANTINGHAM, citizens of the United States, and residents of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Toy Blow-Guns, of which the following is a specification.

Our invention relates to toy guns and more particularly to a gun or blower, wherein the projectile or missile is impelled from the same by the force of a person blowing through the barrel of the gun.

Among the objects of our invention is the provision of a gun that is capable of being aimed by supporting the butt of the stock upon the shoulder and having a flexible tube extending rearwardly from the breech of the barrel or rear end of the blow-pipe, so that its end may be conveniently held or retained in the mouth of the person using the toy. Another object of our invention is the provision in a gun blow tube wherein the projectile or missile may be conveniently loaded into the breech or rear portion of the barrel or tube and the loading opening then closed to prevent the escape of air or the missile therethrough. In using blow-guns and bean-blower tubes, children frequently carry the beans or projectiles in their mouths and sometimes accidentally suck back or inhale through the tube, thereby causing the projectile or missile to enter and become lodged in the throat. This, of course, is extremely dangerous, and it is therefore an object of our invention to provide means in the barrel of a blow-gun or a blow-pipe that will prevent, to a more or less extent, the accidental rearward movement of the projectile or bean in such devices, and at the same time prevent the projectile or bean from accidentally rolling out at the muzzle or outer end of the gun or blow-pipe.

We prefer to accomplish the divers objects of our invention by substantially the means and in the manner hereinafter fully described, and as more particularly pointed out in the annexed claims, reference being had to the accompanying drawing that forms a part of this specification.

In said drawing, Figure 1 illustrates an embodiment of our invention in the form of a toy blow-gun.

Fig. 2 is a longitudinal vertical section of a fragmental portion thereof, on a slightly enlarged scale, showing the means for preventing accidental displacement of the projectile or missile.

Fig. 3 is a transverse vertical section through the projectile loading opening, taken on line 3—3, of Fig. 1, and slightly enlarged.

In the drawings we have employed similar reference characters to designate like parts throughout the divers figures, and by reference to Fig 1, it will be observed the numeral 5 designates a suitable gun-stock that is shaped in the usual manner of a rifle or similar weapon, and provided with a longitudinal shallow groove 6 in the upper edge thereof. An elongated tube, such as a blow-pipe 7, of the usual shape, is seated in this groove in order to provide a barrel for the gun-stock, and said barrel is preferably secured in position by means of transverse straps or bands 8—8, that extend around the reduced portion of the barrel-supporting end of the stock, as well as around the barrel itself, and are held in place by brads, tacks, or the like. Prior to strapping the barrel in place, the groove 6 is coated with glue or other cementitious substance, in order to prevent the rotation of the barrel and to afford further means for securing it in position on the gun-stock. In placing the tube or barrel upon the gun-stock, we prefer to position it in such manner that the longitudinal seam or overlapping portion of the metal forming the barrel will be in this groove 6, thus sealing a greater portion of the seam to prevent the escape of air, as well, and protect the child from any burr or similar roughness that may remain upon the edge of the metal. As shown in Fig. 1 of the drawing, the forward or muzzle end of the barrel is provided with an enlargement in the shape of a wooden ball 9, or the like, to increase the transverse dimension of the end of the tube for the purpose of protection to the child using it; while the rear or breech end of the barrel 7 extends a slight distance beyond the grooved portion of the stock in order that a tube 10, of rubber or like flexible material, may be placed over the end of the barrel, and which is long enough to extend to the mouth of a child or person using the gun. For convenience, a suitable lip or mouthpiece 11 may be provided upon the free end of the flexible tube 10, in order that the latter may be conveniently held in the mouth, between the lips or teeth.

At a point conveniently adjacent the breech end of the barrel the latter is provided with a suitable opening 12 in its upper segment, through which the projectile or missile 13, such as a bean, pea, lead-shot, or the like, may be inserted into the interior of the barrel. This opening 12 is preferably closed by a suitable cover 14, that is secured to the stock by means of a staple 15, and which arches over the barrel in the manner shown in Fig. 3, and is provided with a small lip 16 upon its outer end, in order that it may be conveniently raised to uncover the opening 12. This closure is preferably made of tin or like metal, and its outer portion hugs the inside of the barrel tightly and extends down below the horizontal plane of its axis so that it will snap into position when moved to close the opening.

In order to provide means for preventing any accidental longitudinal movement of the projectile or missile 13, within the barrel, we have devised suitable means that are disposed upon opposite sides of the loading opening 12. This preferably comprises a short piece of spring metal 17, such as a watch spring, that has its ends 18—18 passed through small openings 19—19 in the underside of the barrel opposite the opening 12, and extend rearwardly or forwardly and also curve upwardly to points adjacent the upper segment of the barrel, substantially as shown in Fig. 2 of the drawings. We prefer to employ watch-spring metal for this element because of its extremely flexible nature, and it will be obvious that, after the ends 18 thereof have been positioned, as above described, they will afford means that will prevent the projectile rolling longitudinally toward the muzzle or toward the breech of the barrel, but when the person using the article blows into the breech end thereof, this force will be sufficient to carry the projectile 13 past the forward end 18 of the spring and project the missile from the gun.

We have illustrated a single form in which our invention is capable of application, but it will be obvious to others skilled in this art that divers modifications or changes may be made without materially departing from the spirit of our invention. For example, the means for preventing accidental movement of the projectile may be applied to an ordinary bean-blower tube and the cover 14 for the projectile-loading opening may be a sleeve 20 slidable longitudinally upon the tube, or it may be constructed in the form of a trigger pivoted upon a suitable stock or support for the tube 7. We desire it understood, therefore, that all such changes are contemplated as being included within the scope of my invention as expressed in the appended claims, as the drawings are, in a sense, merely diagrammatic as disclosing the principles of our invention, which is not limited in any way to a toy gun, but may be applied to an ordinary bean-blower.

What we claim is:—

1. A toy gun comprising a barrel provided with a loading opening, a stock upon which said barrel is secured, and an element secured upon said stock and adapted to be moved to close said opening.

2. A toy gun comprising a barrel provided with a loading opening, a stock upon which said barrel is secured, an element secured upon said stock and adapted to be moved to close said opening, and a flexible tube mounted upon the breech end of said barrel.

3. A toy gun comprising a barrel provided with a loading opening, a stock upon which said barrel is secured, an element secured upon said stock and adapted to be moved to close said opening, and means upon opposite sides of said opening adapted to prevent the accidental longitudinal movement of the projectile.

4. A toy gun comprising a barrel provided with a projectile-loading opening, a stock upon which said barrel is secured, a closure for said opening hinged upon said stock, a flexible tube mounted upon one end of said barrel, and a spring element the ends whereof are disposed upon opposite sides of the loading opening.

Signed at Chicago, county of Cook, and State of Illinois, this 10th day of November, 1917.

HIRAM H. BAY.
J HARRY BRANTINGHAM.

Witnesses:
E. K. LUNDY, Jr.,
H. SLACK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."