

W. MILLS & D. J. WOLFE.

Toy Guns.

No. 145,745.

Patented Dec. 23, 1873.

Fig. 1.

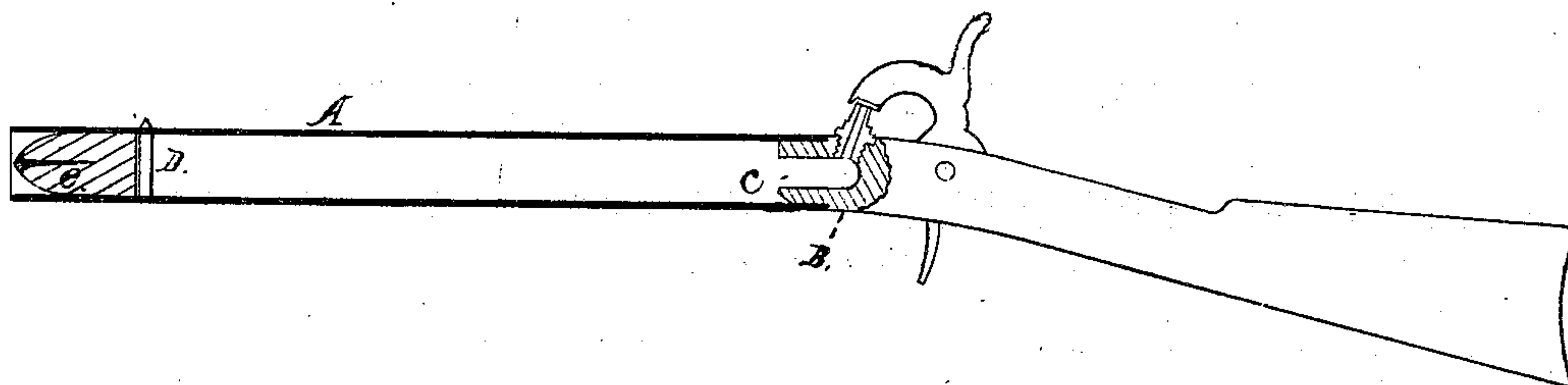


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM MILLS AND DANIEL J. WOLFE, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN TOY GUNS.

Specification forming part of Letters Patent No. 145,745, dated December 23, 1873; application filed May 29, 1873.

To all whom it may concern:

Be it known that we, WILLIAM MILLS and DANIEL JOHN WOLFE, both of Jersey City, in the county of Hudson and State of New Jersey, have invented certain Improvements in Toy Guns, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of this invention consists in a novel method of constructing a toy gun so that the projectile will be forced out of the barrel of the gun by the action of the air in the chamber of the barrel, which is suddenly compressed by the firing of a percussion-cap, and then expands with sufficient force to project the projectile from the bore of the toy gun. On this plan a very simple, cheap, and harmless toy gun can be produced.

In the accompanying drawing, Figure 1 represents a longitudinal central section of a toy gun embodying our invention. Fig. 2 represents a view when looking into the muzzle.

In the drawing, A represents a thin metallic tube, which forms the barrel of the toy gun. B is a cast-metal breech-piece, into which is secured a nipple. This breech-piece contains the chamber of the bore, and also the lock or hammer mechanism, which is similar to that used in ordinary fire-arms. In the tube or barrel A, near the breech-piece B, is an opening, *c*, intended to prevent the barrel being loaded with powder, as is sometimes done with other toy guns. *d* represents a metallic pin or bar, that has its ends secured to the barrel. This pin is to prevent the projectile from passing too far into the bore; it also serves the purpose of a sighting device. *e* represents the

projectile, which may be made of any desirable shape or material; but we prefer cork, made as shown, with a metallic head.

The operation of this invention is as follows: The projectile is inserted in the bore of the tube A until its base rests upon the pin or bar *d*. A percussion gun-cap is then placed on the nipple and fired, as in other guns. The gas or fire from the percussion-cap, when ignited, passes through the nipple into the chamber with great force, and suddenly contracts the air in the bore of the barrel between the hole or opening C and the projectile *e*; the air then suddenly expands to its normal condition, and in doing so expels the projectile from the bore with considerable force.

To prevent the dangerous use of gunpowder in this toy gun, a hole or opening is made in the barrel near the bottom, so that powder cannot remain in the bore. This opening is so located that the power or force from the percussion-cap will pass over it quickly without loss, and the air between it and the projectile is compressed and expanded without loss or force through this opening.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A toy gun having the safety-opening *c*, arranged substantially as and for the purpose specified.

2. The forward sight-pin *d*, passing through the barrel A, substantially as and for the purpose herein set forth.

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Witnesses:

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