H. H. & W. WORGAN.

TOY.

APPLICATION FILED APR. 12, 1913.

1,083,041. Patented Dec. 30, 1913.

FIG. 1

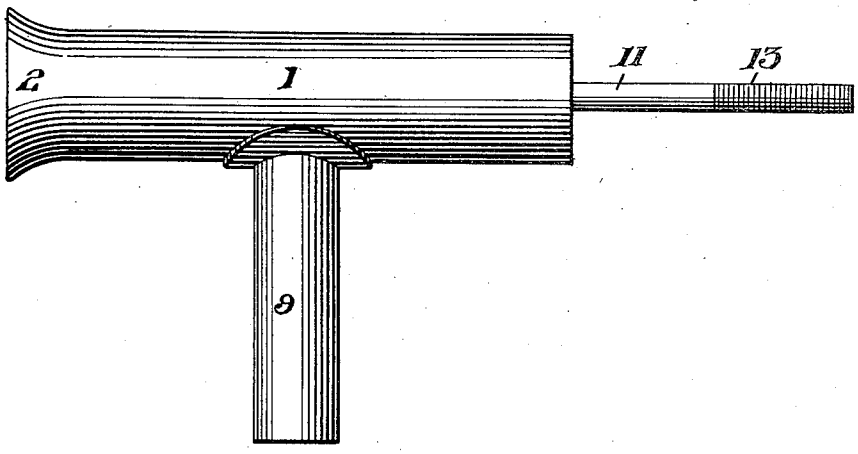


FIG. 2

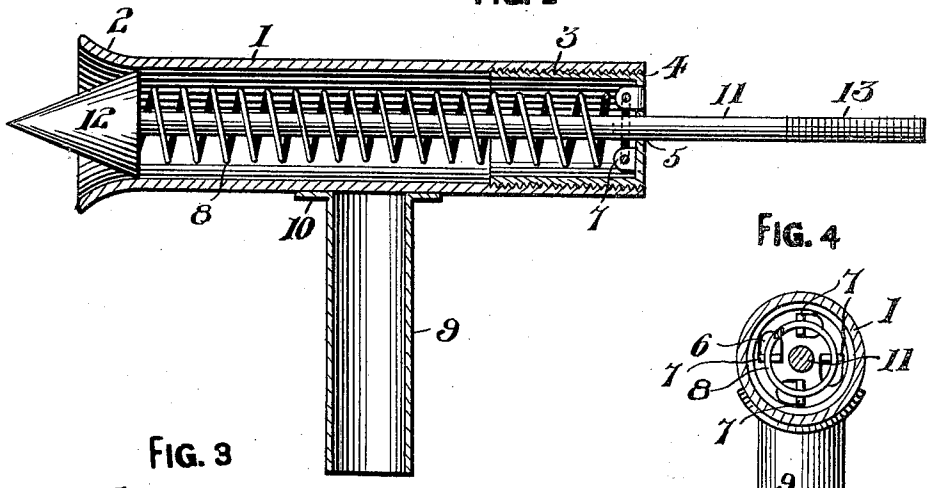
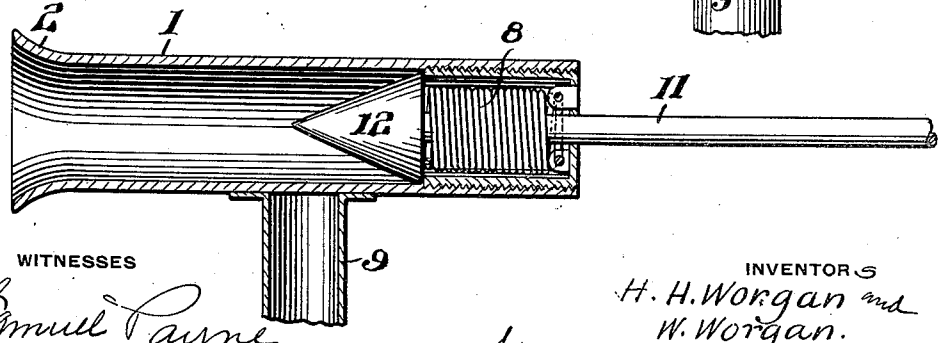


FIG. 4

FIG. 3



WITNESSES

Samuel Payne.

J. P. Sullivan.

INVENTORS

H. H. Worgan and W. Worgan.

by Henry C. Evert.

ATTORNEY.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY H. WORGAN, OF CARNEGIE, AND WILLIAM WORGAN, OF CRAFTON, PENNSYLVANIA.

TOY.

1,083,041. Specification of Letters Patent. Patented Dec. 30, 1913.

Application filed April 12, 1913. Serial No. 760,783.

To all whom it may concern:

Be it known that we, (1) HENRY H. WORGAN and (2) WILLIAM WORGAN, citizens of the United States of America, residing at (1) Carnegie and (2) Crafton, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Toys, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to toys, and more particularly to a toy gun employed for projecting arrows or projectiles toward a target.

The primary object of our invention is to provide a simple and inexpensive toy that can be safely manipulated by a juvenile for projecting or discharging an arrow or other projectile in a desired direction.

Another object of this invention is to provide a strong and durable toy gun wherein effective means is resorted to for discharging a projectile from the gun.

With the above and other objects in view, the invention resides in a novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of the toy. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view of a portion of the toy showing the projectile in position to be discharged, and Fig. 4 is a cross sectional view of the toy.

Further describing our invention in detail with reference to the drawing wherein like numerals denote corresponding parts throughout: 1 denotes a hollow cylindrical metallic barrel that has the outer end thereof flared or funnel shaped, as at 2. The walls of the barrel 1 at the inner end thereof are interiorly screw threaded, as at 3 to receive an exteriorly screw threaded hollow plug 4. The closed end of the plug 4 has a concentric opening 5 and the closed end of said plug is cut and sheared, as at 6 and the sheared material bent inwardly to provide apertured lugs 7. Passing through these apertured lugs is the inner convolution of a coiled compression spring 8.

9 denotes a hollow tubular handle that has a flange 10 at one end thereof that is soldered or otherwise connected to the barrel 1 intermediate the ends of said barrel.

11 denotes a rod having an arrow head 12 at one end thereof and the opposite end knurled or roughened, as at 13 whereby the end of said rod can be easily gripped. The arrow head 12 is of a diameter that said head can enter the barrel 1 as best shown in Fig. 3, and the rod 11 extends through the compression spring 8 and the opening 5 of the plug 4. By gripping the roughened end of the rod 11, said rod can be pulled upon with one hand while the handle 9 is held in the other hand. The coiled compression spring 8 is placed under tension, as best shown in Fig. 3, and when the rod 11 is released, said rod is projected or discharged from the barrel 1. It is possible for the operator of the toy gun to sight or point the gun toward the target or other objects with a view to striking the same with the arrow head 12.

The plug 4 and the apertured lugs 7 thereof prevent the coiled compression spring 8 from becoming accidentally displaced, and the arrow head 12 coöperates with the walls of the openings 5 in guiding the rod 11 as the same is discharged from the barrel.

It is apparent that the toy gun can be made of light and durable metal, the rod 11 and the arrow head 12 of wood or other light material, and that the entire structure can be manufactured at a small cost.

What we claim is:—

1. A toy of the type described comprising a barrel, a plug mounted in one end thereof provided with inwardly projecting apertured lugs, a coiled retractile spring arranged in said barrel and having a convolution thereof connected to the apertured lugs of said plug and a projectile extending through said spring and said plug, adapted to be discharged from said barrel by the tension of said spring and a handle carried by said barrel intermediate the ends thereof.

2. A toy gun comprising a barrel, a plug screwed in the inner end thereof, inwardly projecting apertured lugs carried by said plug, a coiled compression spring having an

end convolution thereof connected to said lugs, a rod arranged longitudinally of said spring and extending through said plug and having the end thereof roughened, an arrow head carried by the opposite end of said rod and adapted to engage the end convolution of said spring, and a handle connected to said barrel.

In testimony whereof we affix our signatures in the presence of two witnesses.

HENRY H. WORGAN.
WILLIAM WORGAN.

Witnesses:
N. L. BOGAN,
MAX H. SROLOVITZ.

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