(No Model.)

S. E. CLARK.

SPRING GUN.

No. 288,548. Patented Nov. 13, 1883.

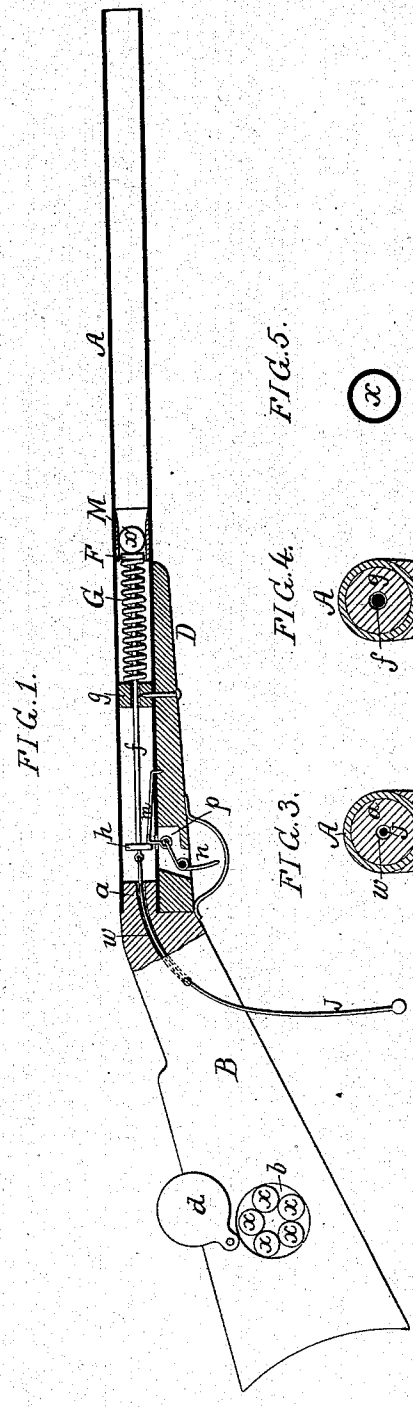


FIG. 1.

FIG. 4.

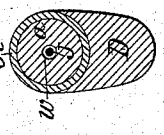


FIG. 3.

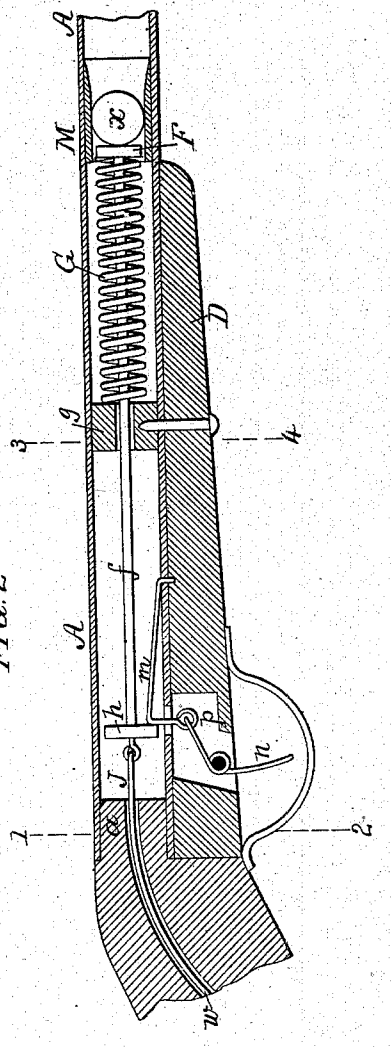


FIG. 2.

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UNITED STATES PATENT OFFICE.

SAMUEL E. CLARK, OF PHILADELPHIA, PENNSYLVANIA.

SPRING-GUN.

SPECIFICATION forming part of Letters Patent No. 288,548, dated November 13, 1883.

Application filed September 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. CLARK, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Toy Guns, of which the following is a specification.

One object of my invention is to construct a toy gun of a light, cheap, and strong character, further objects being to provide for the loading of the gun without a ramrod or other objectionable loading device, to prevent the accidental dropping of the projectile from the barrel before the forcible discharge of the same, and to furnish a light and harmless projectile for the gun.

In the accompanying drawings, Figure 1 is a longitudinal section, partly in elevation, of my improved toy gun, the same being shown loaded; Fig. 2, an enlarged section of part of Fig. 1; Figs. 3 and 4, transverse sections on the lines 1 2 and 3 4, respectively, Fig. 2; and Fig. 5, a sectional view of the projectile.

A is the barrel of the gun, and B D the stock. The barrel A is made of a tube of coiled paper, such as is used for a mailing-tube, but somewhat stiffer and heavier, and is preferably painted or varnished, to add to its rigidity, and also for ornament. I have found that a tube of this kind answers admirably as a barrel for a toy gun, being cheaper than a wooden barrel, and less liable than a sheet-metal tube to become dented or otherwise injured by rough handling.

The stock, for the sake of economy and facility of manufacture, is made in two parts, B and D, the rear portion, B, having at the front end a projection, *a*, which fits snugly to the rear end of the barrel A, and is secured thereto by glue or other cement, or by suitable tacks or pins. In one side of the portion B of the stock is a recess, *b*, for holding the projectiles *x* when the gun is not in use, this recess being provided with a pivoted cover-plate, *d*. The portion D of the stock is secured to the front end of the portion B, and extends along the under side of the barrel A, to which, as well as to the stock B, it is suitably secured. The stock is made of wood, and the use of two pieces, B and D, materially lessens the cost of the same, as each piece is comparatively small, and the waste in forming the same slight, whereas if the stock were made of a single piece a larger and much more expensive block would be required, and the waste would be considerable.

The plunger F is secured to the front end of a rod, *f*, which passes rearwardly through an opening in a block, *g*, secured within the barrel A, a coiled spring, G, being interposed between said plunger and block, and tending to thrust the plunger forward. The rear end of the rod *f* has a flange, *h*, with which, when the plunger is drawn back, engages a spring-catch, *m*, the latter being under control of a trigger, *n*, hung within a recess, *p*, in the portion D of the stock. The retraction of the plunger is effected by means of a flexible cord, J, connected to an eye on the flange *h*, and passing rearwardly through an opening, *w*, in the stock B, so that the loading of the gun can be effected without the use of a ramrod, the latter being objectionable, because if allowed to remain in the barrel it is liable to cause injury when forcibly discharged.

I am aware that toy guns and cannons have been made in which the plunger-rod has been carried through the rear of the breech for the purpose of retracting the plunger without the use of a ramrod; but this part of my invention consists in the use of a flexible cord, which is not an inconvenience, and is not liable to interfere with the aim, or to strike the face of the person firing the gun, for the cord can be directed to the side of the stock, as shown in Fig. 1, so that when the gun is discharged said cord will not come in contact with the face.

The barrel has an internal tube, M, of paper, which is secured within the barrel, so as to be adjacent to the plunger F when the latter is retracted. This tube M is tapered, as shown in Fig. 2, so as to clamp and retain the projectile *x*, the latter being dropped into the muzzle of the gun and shaken down into the tube M by striking the stock B upon the ground.

The projectile consists of a hollow ball, of rubber, Fig. 5, this being light, easily projected, and not likely to cause injury, and at the same time admitting of being readily compressed, so as to insure its retention in the barrel.

I do not desire to claim in this patent the construction of the stock, or the internal tube, M, in the barrel, as I propose to make these features the subject of a subsequent patent.

I claim as my invention—

1. The combination, in a toy gun, of the plunger-rod *f* with a flexible retracting-cord, J, passing rearwardly through an opening in the breech, and extending to the outside of the stock, as set forth.

2. The combination, in a toy gun, of the plunger-rod *f* with the flexible retracting-cord J, passing rearwardly through an opening in the breech, and emerging at one side of the latter, as set forth.

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

SAMUEL E. CLARK.

Witnesses:

JOHN E. PARKER,

HARRY SMITH.