(No Model.)

T. H. BROWN.

TOY PISTOL.

No. 369,914. Patented Sept. 13, 1887.

Fig. 1.

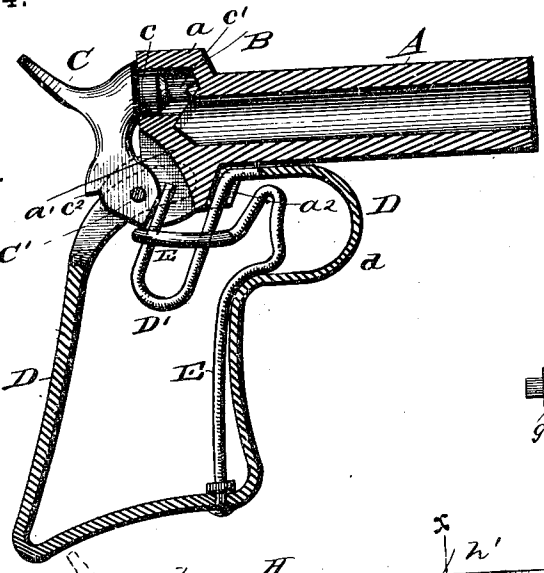


Fig. 4.

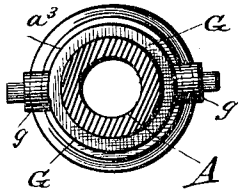
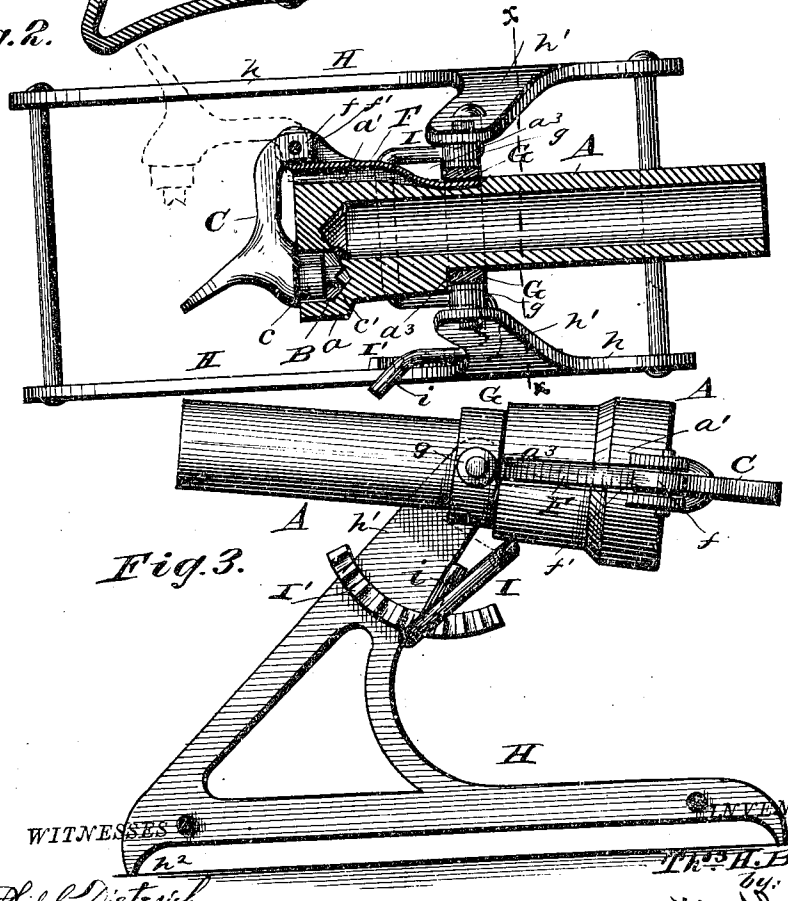


Fig. 2.



WITNESSES

Phil C. Dieterich.

A. E. Dowell.

INVENTOR

Thos. H. Brown.

by: Wm. Alexander

Attorney

UNITED STATES PATENT OFFICE.

THOMAS H. BROWN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THOMAS H. BROWN AND KATE M. DES CHAMPS, OF SAME PLACE.

TOY PISTOL.

SPECIFICATION forming part of Letters Patent No. 369,914, dated September 13, 1887.

Application filed March 14, 1887. Serial No. 230,856. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. BROWN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toy Pistols; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 represents a vertical central section through my improved toy pistol. Fig. 2 represents a similar view of the same as converted into a toy cannon. Fig. 3 is a vertical section of the same. Fig. 4 is a detail view in cross-section of the barrel on line *x x*, Fig. 2.

This invention relates to improvements in toy pistols and cannon; and it consists in the novel construction and arrangement of the parts of the same, hereinafter described, illustrated in the drawings, and particularly specified in the claims hereto annexed.

Referring by letter to the drawings, A designates the barrel of the pistol, Fig. 1, which is of proper bore to receive an ordinary fire-cracker within it. The breech of this barrel is enlarged at *a a'* on its upper and lower surfaces, respectively, as shown, and through the enlargement *a* and breech of the barrel is bored a horizontal hole, B, the lower part of the inner end of which opens into the bore of barrel A.

C designates a hammer, the lower end of which is pivoted by a pin, C', in a vertical slot made in enlargement *a'*, and said hammer rises vertically to and has a head, *c*, which is adapted to enter the hole B when "down," and is of such size that it will then completely close said hole. The inner end of head *c*, however, is reduced, as at *c'*, for exploding a proper cap placed in said opening and permitting the smoke and gases arising from such explosion to pass into the bore of barrel A. The hammer is also provided with a suitable finger-piece for cocking it.

D designates a wire spring-bar of flat metal, which forms the pistol-handle and hammer-spring. The rear end of this bar D is turned up against the enlargement *a'*, and is secured thereto by the pin C', as shown. From this point the bar D is extended into the outline of an ordinary handle and has its forward portion bent outwardly, as *d*, beneath the barrel A, forming a finger trigger-guard, and in rear of said guard the bar passes through a slot or groove, a^2, in the front surface of the projection *a'*, as shown, and is jammed therein, so that it is held rigid with the barrel. From this groove bar D makes a downwardly-inclined return-bend, and the free upper end of this bend bears against the lower front end of hammer C, forming the actuating-spring D' therefor, as shown. It will thus be seen that I form the handle and hammer-spring for the pistol of one piece of wire. The hammer C is formed with ordinary engaging-surfaces at its lower pivoted end to cause its actuation by the spring.

E designates the trigger-wire, the lower end of which is properly secured at the lowest part of handle D, and extends thence up into the trigger-opening, where it is suitably bent to give a purchase for the finger, and thence extends rearward slightly beyond the spring D', and is adapted to engage a shoulder, c^2, on the lower end of hammer C.

When the hammer is "set" or cocked, the rounded part at the lower end of the same engages the spring D' and forces the same outward until its point of engagement with the hammer is slightly beyond the center of force in relation to the pivot C'. This causes the shoulder c^2 on hammer C to be brought into position for engagement by trigger E, so that when the latter is pulled it engages said shoulder and turns the hammer C until it is in proper position to be acted upon by the spring D', which will then cause its instantaneous and forcible closing.

In Fig. 2, in which I have shown the barrel A converted into a toy cannon, the barrel is turned partly around, so that the enlargements *a a'* are on opposite sides of the same instead of top and bottom, as in Fig. 1. The hammer C is also horizontal instead of vertical. The handle D and trigger E are omitted, and in place of bent spring D' a flat spring, F, is used, which bears against an angular arm, *f*, on the pivotal end of hammer C, as shown, which has a "setting-edge," *f'*, by which the hammer is

held "cocked," the spring F causing the actuation of the hammer as soon as it is sprung by the finger of the operator. This spring F plays through a longitudinal groove formed in the side of enlargement a', and its front end is held by a trunnion-ring, G, which is placed on barrel A and driven down against the shoulders a^3, formed near the breech thereof, the front end of spring F being placed in a shallow groove just in front of said shoulders, as shown, so that when ring G is driven into place it will jam the end of the spring between barrel A and itself, as shown, securely holding said spring in position.

The ring G is provided at diametrically-opposite points with trunnions $g\,g$, which rest in proper arms rising from a carriage, H, as shown. The carriage H is formed of two side pieces, $h\,h$, properly united by suitable rods, the trunnion-bearing arms h' rising from the front ends thereof and inclining rearwardly, as shown, so that when in position no obstruction will be offered by the carriage to the manipulation of hammer C. The lower rails of the carriage are provided with suitable teeth or projections, h^2, to keep the same in position.

I designates the wire which connects the upper ends of the arms of the carriage below trunnions $g\,g$. Said wire is preferably curved, as shown, and is extended at one end outside the arm and provided with a crank-piece, i. By means of wire I the cannon can be set at various angles, and the wire is held in such position by engaging its arm i with a suitable rack, I', secured to the arm of the carriage, as shown. The cannon swings independently of wire I, so that it can be loaded without disturbing the set of said wire.

The manner of using the toy is as follows: One or more paper caps are placed in hole B, and a fire-cracker is then placed in the bore of barrel A and its fuse ignited. When the fuse has nearly burned out, the hammer C is released, exploding the caps in hole B. The gases and smoke caused by such explosion pass into the barrel, as described, and blow out the cracker to a distance varying with the number of caps employed, the cracker exploding after its discharge.

Another manner of using the toy is by placing a cap in hole B, then placing a few grains of powder in bore of the barrel, taking a fire-cracker and cutting its fuse off short, and placing the same in the bore with its fuse inside. Upon exploding the cap the powder will be ignited, causing the ignition of the cracker-fuse, and at the same time discharging the cracker from the barrel very forcibly. I prefer making the barrels A of wrought-iron shaped in suitable dies and afterward bored out. The hammer C and trunnion-rings of cannon can be punched from sheet metal.

It will be observed that I have a very easily constructed and durable toy, and one which will afford both amusement and instruction to its owner.

Having described my invention, what I claim is—

1. The combination of barrel A, having diametrically-opposite enlargements $a\,a'$ formed at its breech, the enlargement a having a cap-opening, B, made therein, lying parallel with but to one side of the bore of the barrel and communicating with this bore at one side of its inner end, with a spring-actuated hammer, C, pivoted upon enlargement a' and extending diametrically toward enlargement a, and having a head, c, on its free end adapted to enter the opening B and explode the cap therein, and to simultaneously close said opening, so that the gases arising from the explosion of the cap will enter the bore of the barrel, all substantially as and for the purpose specified.

2. In a toy pistol, the combination of barrel A and hammer C, constructed and operating substantially as described, with a wire, D, bent as described, to form the handle of the pistol and the actuating spring for the hammer, all constructed and arranged substantially as and for the purpose described.

3. In a toy pistol, the combination of the barrel A, having cap-opening B, hammer C, pivoted on barrel A, and having a head, c, adapted to enter opening B to explode the cap, the flat wire D, bent as described, to form the handle of the pistol and secured to barrel A at proper points, and having its front end bent into a spring, D', for actuating the hammer, and a suitable trigger-wire for releasing the hammer when cocked, all constructed and adapted to operate substantially as described.

4. The combination of barrel A, having enlargements $a\,a'$, the cap-opening B in enlargement a, the hammer C, pivoted in enlargement a', and having a head, c, for entering and closing opening B to explode the cap, with the wire D, bent to form the handle of the pistol and the trigger-guard, and also forming the spring D' for the hammer C, and the trigger-wire E, secured to handle D and bent as described, and adapted to engage the hammer C when cocked, all constructed and arranged to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THOMAS H. BROWN.

Witnesses:
CHAS. B. OWEN,
H. P. GATES.