

L. V. ARONSON.
SPARKING PISTOL.
APPLICATION FILED JUNE 6, 1921.

1,410,638.

Patented Mar. 28, 1922.

Fig. 1.

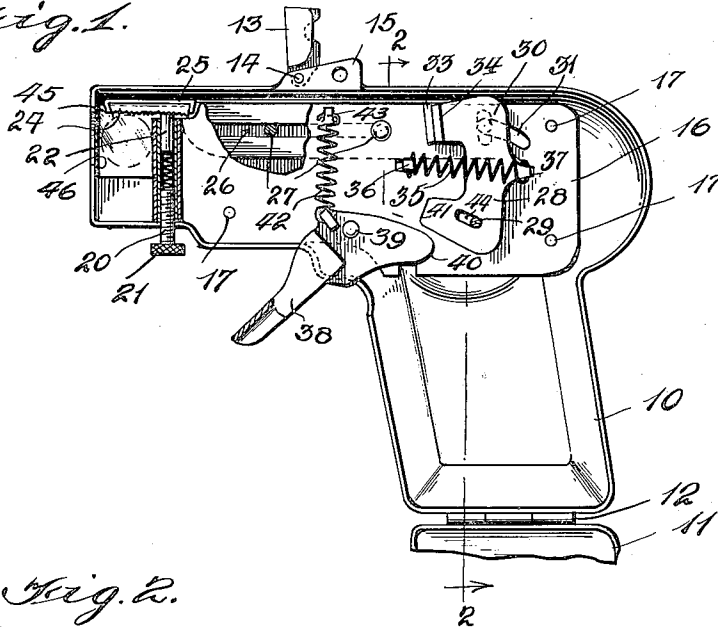


Fig. 2.

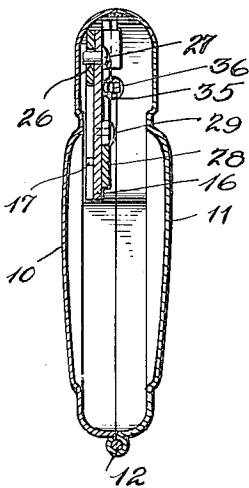
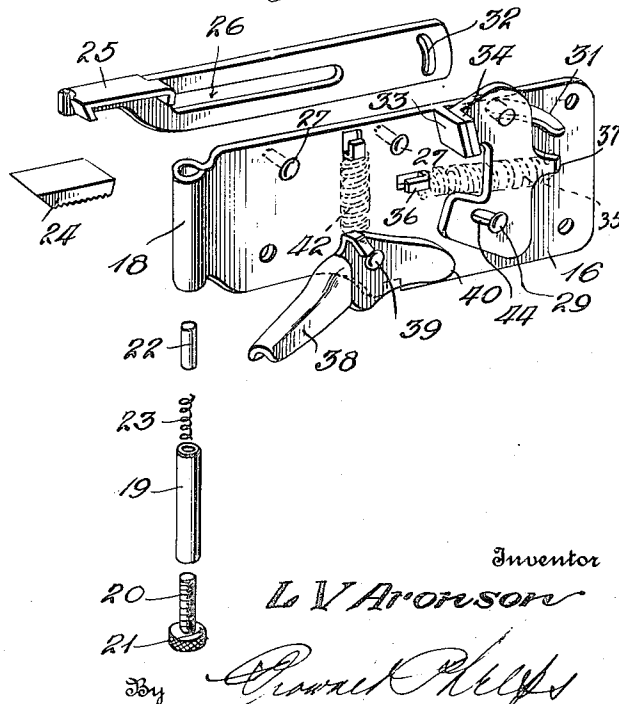


Fig. 3.



UNITED STATES PATENT OFFICE.

LOUIS V. ARONSON, OF NEWARK, NEW JERSEY.

SPARKING PISTOL.

1,410,638.

Specification of Letters Patent. Patented Mar. 28, 1922.

Application filed June 6, 1921. Serial No. 475,530.

To all whom it may concern:

Be it known that I, LOUIS V. ARONSON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Sparking Pistols, of which the following is a specification.

This invention relates to toys, and has as an object the provision of a pistol which will produce a sound and a semblance to the flash of the explosion of a fire arm without danger of producing fire or of wounding the user by flying particles from an explosive substance.

An illustrative embodiment of the invention is shown in the accompanying drawing, in which—

Figure 1 is a side view of the pistol with the casing open, the open portion being broken away;

Fig. 2 is a vertical transverse section on line 2, 2 of Fig. 1;

Fig. 3 is an exploded perspective view of the mechanism of the pistol.

The casing of the toy is made in two parts 10 and 11, separating upon the longitudinal median line of the pistol and hinged as at 12. To hold the two parts in closed position a latch 13 is shown pivoted at 14 to a projection 15 upon the part 10 and adapted to clasp a projection, not shown, upon the part 11 of the same shape and size as the projection 15. The outlines of the casing parts 10 and 11 when closed together resemble the form of an automatic pistol. To hold the working mechanism of the pistol a plate 16 may be riveted to one of the parts, as 10, as by rivets 17. To produce the semblance of flame as the pistol is operated means are provided to produce friction upon a piece of pyrophoric metal.

To hold the metal the end of the plate 16 is rolled into a tube form, as at 18. A tube 19 is frictionally held within the roll 18, which tube is interiorly threaded to receive an adjusting screw 20 having a knurled head 21 which projects in the assembled toy below the barrel and adjacent the muzzle. A piece of pyrophoric metal 22 is seated in the tube 19 upon a coil spring 23 which resiliently presses the metal 22 against a file-like piece of metal 24, which in turn is carried by a sliding member 25. To adjust the pyrophoric metal 22 as it is worn away the head 21 may be turned, thereby compressing

spring 23 and forcing the metal toward the friction member 24.

To provide for a sliding motion of the member 25 it is provided with a slot 26, which is held and guided by pins 27 passing through the slot and loosely headed down when assembled.

To cause motion of reciprocation of the member 25 a hammer member 28 is pivoted at 29 with lost motion, for a purpose to be explained. The member 28 rigidly carries a pin 30 which travels in a slot 31 in the plate 16 and projects through the plate 25, which plate is provided with a slot 32 to allow for the transverse movement of the pin 30, due to its motion about pivot 29. To limit the forward movement of the member 28 and to produce a sound simulating an explosion when the pistol is discharged a flange 33 is struck up from the metal of the plate 16, and a similarly shaped flange 34 is produced by turning the end of the sheet from which the member 28 is formed. The hammer member 28 is held in its forward position by means of a spring 35 attached at a forward end to a hook 36 which may be struck out from the metal of the plate 16 and at its rearward end is attached to a projection 37 turned up from the metal of the member 28. A trigger 38 is shown as pivoted at 39 and having an end 40 projecting below the end 41 of the hammer. The trigger is held in its forward position by means of a spring 42 which is secured to the plate 16, as at 43. When the trigger is depressed the end 40 impinging upon the point 41 of the hammer will move the upper end of the hammer and the plate 25 to the rear against the force of spring 35 until the trigger passes beyond the point 41 of the hammer when the spring 35 will suddenly return the parts with friction upon the pyrophoric metal 22 and with a concussive sound caused by parts 33 and 34 coming together.

When the trigger is released and returned by spring 42 the hammer 28 will pivot about pin 30, the lower end being moved to the rear, the slot 44 moving upon the pin 29. To provide for this action the spring 42 is made stronger than the spring 35, so that the hammer 24 will yield as described.

A sudden forward motion of the plate 25 will produce sparks from the pyrophoric metal. To allow the glow of the sparks to be seen windows 45 are provided in the end

and in the two sides adjacent the end of the muzzle of the barrel, and preferably red paper or other translucent material, as 46, is provided upon the interior of the barrel to produce a realistic effect.

It will be seen that there is provided a perfectly harmless toy which gives a realistic effect and which may be used repeatedly without reloading and which, in addition, is not excessively noisy or otherwise objectionable. By omission of the translucent material 45 to allow the sparks to have access to the atmosphere exteriorly of the muzzle the device may be used as a gas lighter in a well known manner.

Minor changes may be made in the physical embodiment of the invention without departing from its spirit.

I claim:

1. A sparking device comprising a plate, a pyrophoric element carried by the plate, a friction element movably mounted upon the plate, a hammer member pivotally mounted upon the plate, a spring pressing said hammer and movable member to their limit of movement in one direction, a trigger pivoted upon the plate adapted when pressed to retract said hammer and movable member and to automatically release the same for sudden return of the friction element whereby to produce sparks from the pyrophoric metal.

2. A toy pistol comprising a casing, a plate mounted in said casing, a pyrophoric element mounted on said plate, a friction element, a slidable plate mounted upon said

plate and carrying said friction element, a hammer mounted upon said plate upon a pivot arranged for lost motion and adapted to withdraw said slidable element, a spring pressing said hammer and slidable element to normal position, a trigger mounted upon said plate, a spring holding said trigger in normal position, said trigger adapted when pressed to retract said hammer and to suddenly release the same, allowing said friction element to return to normal position, the spring of said trigger being stronger than the spring of said hammer whereby the trigger will be returned to normal, moving said hammer about its lost motion pivot to permit the trigger to pass the hammer.

3. A toy pistol comprising a casing, a plate mounted within the casing, a sparking element holding loop carried by said plate, a friction device mounted on the plate, means carried by the plate to press a sparking element held in said loop against the device, and means mounted on the plate to cause movement of said device.

4. A toy comprising a casing of pistol-form having openings in its muzzle and the sides of the barrel adjacent the muzzle, translucent material covering said openings, and spark-producing means mounted in said casing whereby the illumination from the spark is caused to pass through said translucent coverings and openings.

In testimony whereof I affix my signature hereto.

LOUIS V. ARONSON.