Oct. 8, 1946. A. C. CIMAGLIA 2,408,913

TOY GUN

Filed May 18, 1943

Fig. 1

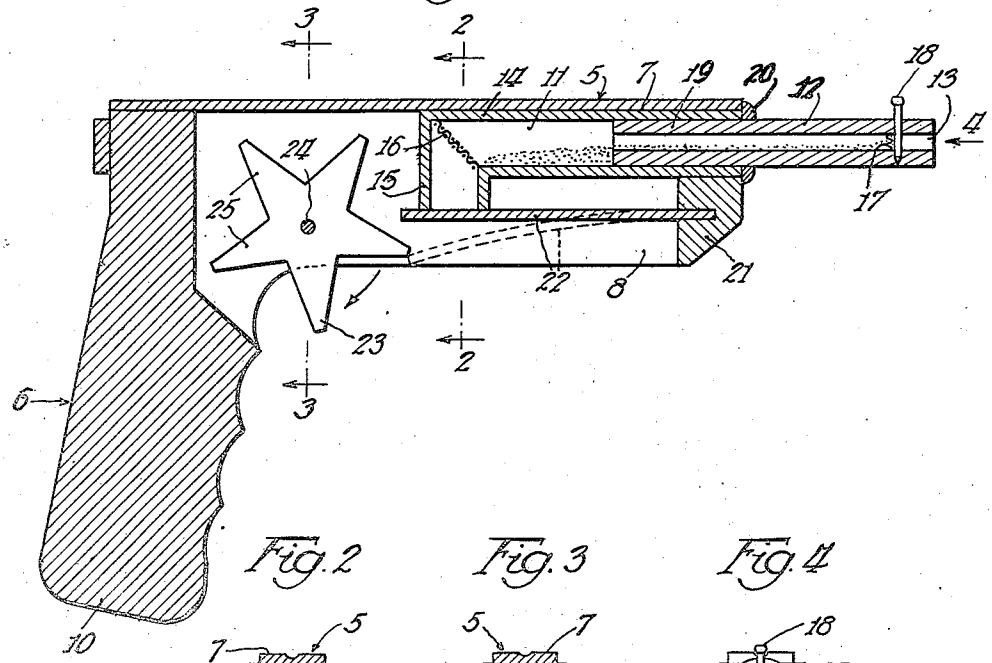


Fig. 2

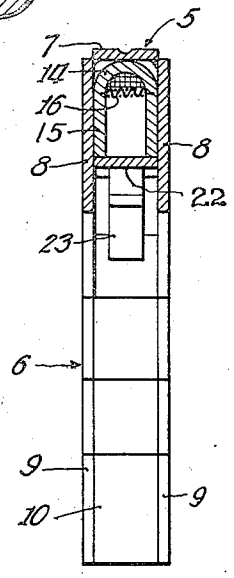


Fig. 3

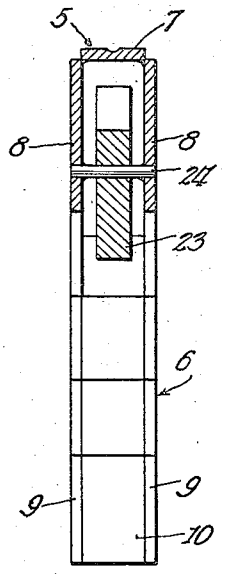
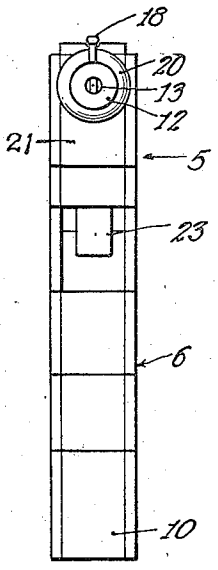


Fig. 4



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TOY GUN

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3 Claims. (Cl. 46—9)

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This invention relates to toy guns, and its principal object is to provide a toy gun having means whereby to simulate the sound of an explosion caused by the firing of a fire arm and simultaneously to simulate the puff of smoke discharged from the nozzle of the gun.

Another object is to provide a toy gun which is incapable of injury to children or others. Another object is to provide a toy gun which can be manufactured from materials at present available to the public.

With these and other objects and advantages in view this invention consists in the several novel features hereinafter fully set forth and claimed.

The invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a central, vertical, longitudinal section through a toy gun, illustrating one form of the present invention;

Fig. 2 is a vertical cross section taken on the line 2—2 of Fig. 1;

Fig. 3 is a vertical cross section taken on the line 3—3 of Fig. 1; and

Fig. 4 is an end elevation looking in the direction of the arrow 4 in Fig. 1.

Referring to said drawing, which is merely illustrative of one form of the present invention, the reference character 5 designates the body or stock of the toy gun, which may be of any desired form and 6 designates the grip thereof. Conveniently the body may be formed of cardboard or the like scored lengthwise of itself at two spaced places and folded upon itself to form a top wall 7, and two side walls 8, which are extended downward along the grip as at 9, between which is a block 10 of suitable composition glued or otherwise secured to the grip extensions 9 to provide a suitable grip.

The scored and folded parts 7, 8, form a hollow body in which is contained a powder chamber 11, adapted to contain a quantity of non-explosive non-combustible powder, such for instance as magnesia or chemicals in powder form which are capable of producing smoke effects when a small quantity is discharged from the muzzle of the toy gun when operated, as will be hereinafter set forth. Extending from the powder chamber is a barrel 12 having a restricted discharge orifice 13 through which a small quantity of the powder is discharged simulating the discharge of a puff of smoke when the toy gun is operated.

Desirably the powder chamber is composed of a tubular member 14 glued or otherwise secured to the body of the toy gun, and having an elbow 15 secured thereto at its inner end and opening

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downward. A piece of gauze 16 or the like is secured across the hollow of the powder chamber at its inner end, to prevent escape of the powder at this end and a piece of gauze 17 or the like is secured in the barrel adjacent its outer end to prevent accidental escape of the powder. A small nail or the like 18, which serves as a sight, may be driven into the barrel at its discharge end to retain the gauze piece 17 in place.

The barrel 12 may have an extension 19 which is removably secured in the powder chamber by a friction fit and a flange 20 on the barrel bears against the end of the body and positions the barrel with respect thereto.

Glued or otherwise secured to the front end of the body between the side walls 8 thereof, is a small block 21, having a kerf in which is glued or otherwise secured a tongue 22, composed of resilient material such as a strip of wood, which tongue normally extends across the open end of the elbow 15, but is adapted to be sprung away therefrom and permitted to spring back and strike against the end of the elbow to produce a sharp sound simulating the sound caused by the explosion of gun powder.

A trigger 23, here shown in the form of a star wheel, is rotatively mounted on a pin 24 secured in the side walls 8 of the body, and the points 25 of the star wheel are arranged to encounter and depress the free end of the tongue 22 when the trigger is rotated in the direction of the adjacent arrow, thereby retracting the free end of the tongue from the end of the elbow 15, and permitting it to snap back as the end of the active point of the star wheel passes the free end of the tongue.

In use the powder chamber is partially filled with a non-explosive powder. In operating the toy gun, a person grasps the grip and presses the protruding point of the star wheel trigger toward the grip, thereby bringing the next adjacent point of the trigger against the adjacent end of the tongue 22 and deflecting it downwards until the end of the point of the trigger slips past the end of the tongue, permitting it to snap back against the end of the elbow and produce a sharp sound simulating the sound produced by the explosion in a fire arm when discharged. Simultaneously the tongue compresses the air in the powder chamber and discharges a small quantity of the powder therefrom through the restricted discharge orifice at the muzzle of the barrel, thereby simulating a puff of smoke discharged from the muzzle of a gun when fired.

The effect produced is very similar to the sound

and visual result produced in firing a gun using explosive powder. The sound of the explosion is faithfully simulated as well as the discharge of a puff of smoke.

The toy gun is harmless, yet is attractive and entertaining. It can take the various forms of fire arms, is simple, inexpensive and can be made from materials at present available to the public.

I claim as new and desire to secure by Letters Patent:

1. A toy gun comprising a hollow body, a tubular powder chamber open at both ends secured therein, said chamber being adapted to contain a quantity of non-explosive, non-combustible powder, a barrel removably secured in one end of the chamber and having a restricted discharge opening, porous retaining walls extending across the hollows of the chamber and barrel for preventing accidental escape of the powder, and a resilient element adapted to strike against the open inner end of the chamber whereby to produce sound simulating the sound of an explosion and simultaneously to compress air in the chamber and thereby discharge a small quantity of the powder from the barrel whereby to simulate a puff of smoke.

2. A toy gun comprising a body having an L-shaped powder chamber therein, open at both ends, said chamber being adapted to contain a quantity of non-explosive, non-combustible powder, a barrel protruding from one end of the chamber, porous powder retaining walls one disposed adjacent the inner end of the chamber and one adjacent the outer end of the barrel, a resilient tongue secured at one end to the body with its free end in contact with the inner open end of the chamber, and a trigger having means to engage the free end of the tongue when operated, whereby to spring back the tongue, which when released from the trigger means functions to spring back against the inner open end of the chamber, thereby producing a sound simulating an explosion, and simultaneously compressing the air in the chamber and discharging a quantity of the powder through the discharge end of the barrel, thereby simulating a puff of smoke.

3. A toy gun comprising a body having an open ended powder chamber therein adapted to contain a quantity of non-explosive, non-combustible powder, a barrel protruding therefrom, a star wheel trigger rotatively mounted in the body, and a resilient tongue having one end fixed to the body with its free end normally engaging the inner open end of the chamber, said trigger, when operated, acting to spring back said tongue and release the same, whereby when released said tongue springs back against said inner open end of the chamber, thereby producing a sound simulating an explosion and simultaneously compresses the air in the chamber, thereby discharging a small quantity of the powder from the muzzle of the barrel, thereby simulating a puff of smoke.

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