M. PILNACEK.

TOY PISTOL.

APPLICATION FILED JAN. 17, 1919.

1,398,277. Patented Nov. 29, 1921.

Fig. 1.

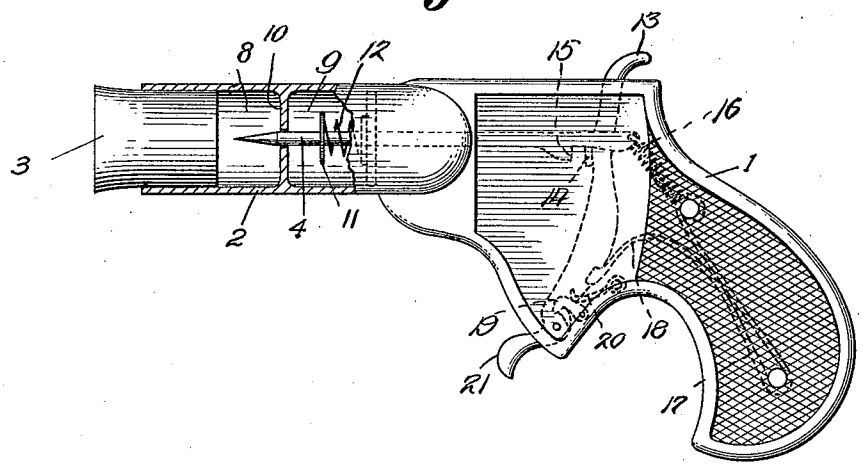


Fig. 2.

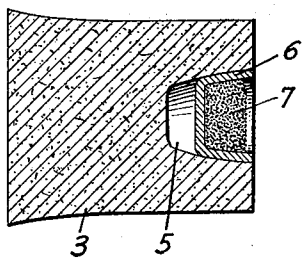
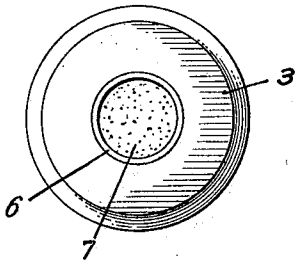


Fig. 3.



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TOY PISTOL.

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Application filed January 17, 1919. Serial No. 271,579.

To all whom it may concern:

Be it known that I, MICHAEL PILNACEK, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have invented a certain new and useful Toy Pistol, of which the following is a specification.

This invention is a toy pistol, but pertains, more particularly, to the structure of the cartridge employed. It is common in toy pistols to compress a body of air, usually by a plunger or piston operating in the barrel of the pistol, and cause such compressed air to force a cork, or similar body, from its position at the end of the barrel, thereby causing the desired noise, resembling explosion.

The present invention is aimed to accomplish, substantially the same function, but in an entirely different manner. With this object in view, a cork or similar light body is employed as a plug at the open end of the barrel of the pistol, the inner end of the cork containing an explosive agent, adapted to be fired or exploded by a pin or plunger forcibly engaging the same, which explosive generates gases, and consequent gaseous pressure in the barrel to such extent as to forcibly eject the cork from the pistol, in substantially the same manner as though compressed air were employed in the manner pointed out above.

In the preferred construction of the cork or plug, the inner end of the same is bored, whereupon an open-mouthed capsule containing the explosive is inserted therein, thereby leaving the explosive exposed for engagement with the inner plunger.

Features of the invention other than those specified will be apparent from the hereinafter detailed description taken in conjunction with the accompanying drawings.

In the accompanying drawings, I have illustrated one practical form of the invention, but the construction shown therein is to be understood as illustrative only, and not as defining the limits of the invention.

Figure 1 shows, partly in section and partly in elevation, a toy pistol with the cork or plug position in the open-mouth thereof;

Fig. 2 is a transverse section through the plug and explosive capsule; and

Fig. 3 shows, in elevation, the face of the plug.

Referring to the drawings 1 designates a pistol having a barrel 2 with a cork or plug 3 positioned in the open end thereof. 4 designates a firing pin or plunger with which is associated a spring 12 for normally exerting a forward pressure on the firing pin. 13 denotes a lever provided with an off set 14 adapted to coöperate with a shoulder 15 on the firing pin. A spring 16 normally maintains the firing pin in coöperative relation with the lever as shown in Fig. 1. Also associated with the lever 13 is a leaf spring 17, one arm of which 18 bears against the lever and normally tends to force it in a forward direction. The lever is however normally maintained in retracted position by a detent 19 held in place by a spring 20. A trigger 21 is adapted in cocked position to permit the detent to engage the lever and restrain the same, but when the trigger is pulled, the detent is released and the spring 18 acting upon the lever 13 throws the same forwardly, thereby causing the off set 14 to strike the shoulder 15 and actuate the firing pin.

The cork or plug 3 at its inner face is bored at its inner end as indicated at 5 and seated therein is an open-mouthed capsule 6 containing the explosive compound or mixture 7.

It will be noted that the barrel 2 is divided into two chambers 8 and 9 by a transverse partition 10, in which transverse partition the firing pin 4 has a bearing. The chamber 8 thus becomes the firing chamber and the partition 10 precludes the heat of the explosion from injuring the working parts of the pistol. On the firing pin 4 is preferably fixed a disk or baffle 11 which, when the firing pin goes forward to set off the explosive 7, serves to seal the aperture in the partition 10, through which the pin 4 passes, so that loss of compression in the explosive chamber is precluded.

The operation of the toy will be apparent, it being manifest that the operation of the trigger will, through any desired means, *e. g.*, the mechanism shown in dotted lines, force the firing pin 4 to move rapidly forward and strike the explosive 7. The result-

ing rapid combustion of said explosive will create a high pressure in the firing chamber 8 and the cork 3 will be shot from the muzzle of the pistol. The cork may be used again by inserting a new capsule 6 therein or new corks may be used on each successive discharge of the pistol.

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

A toy pistol embodying a barrel provided with an open forward end adapted to receive a pellet embodying an explosive charge, a partition extending across the barrel intermediate its ends and provided with an aperture, said partition dividing the barrel into a forward firing chamber and a rear operating chamber, a firing pin extending through the operating chamber and projecting through the aperture in the partition, a spring seated within the rear end of the barrel and exerting a forward pressure on the firing pin, a lever coöperating with the firing pin, a spring coöperating with the lever for manipulating the lever forwardly to actuate the firing pin, an additional spring for maintaining the firing pin in coöperative relation with said lever and a trigger for normally holding said lever in restraint, whereby when the trigger is actuated the lever is released and operates the firing pin for the purpose of exploding the explosive charge.

In testimony whereof, I have signed my name to this specification.

MICHAEL PILNACEK.