July 12, 1960 J. H. WEIMER 2,944,358

TOY CAP REVOLVER

Filed Oct. 29, 1959

FIG. 1.

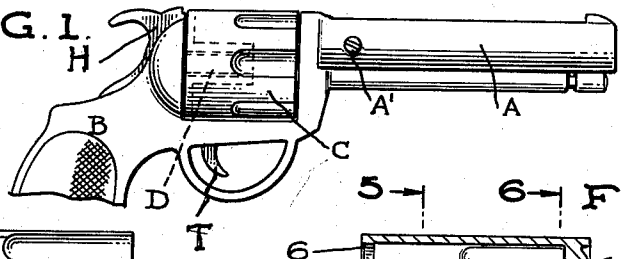


FIG. 2.

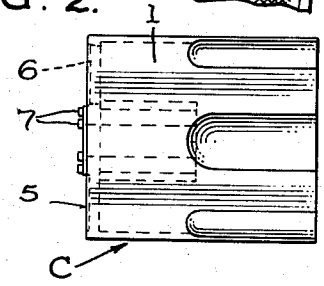


FIG. 3.

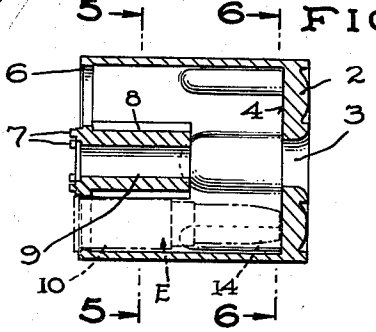


FIG. 4.

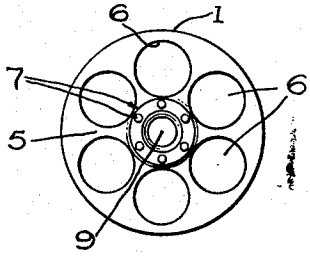


FIG. 5.

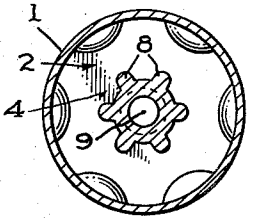


FIG. 6.

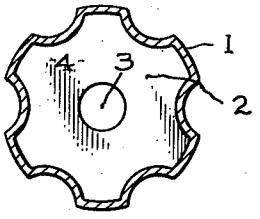


FIG. 7.

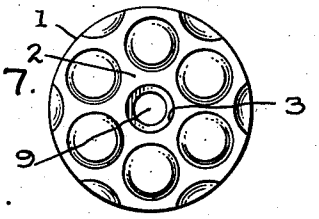
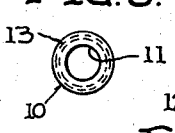


FIG. 8.



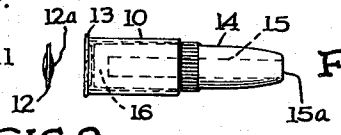


FIG. 9.

FIG. 10.

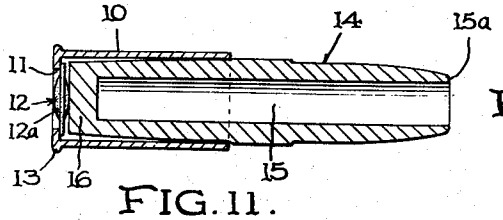


FIG. 11.

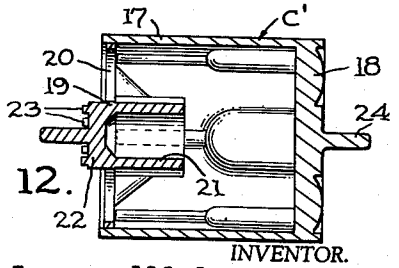


FIG. 12.

INVENTOR.

JOHN H. WEIMER

BY

ATTORNEY

United States Patent Office 2,944,358
Patented July 12, 1960

2,944,358

TOY CAP REVOLVER

John H. Weimer, Manheim, Pa., assignor to The Hubley Manufacturing Company, Lancaster, Pa., a corporation of Pennsylvania

Filed Oct. 29, 1959, Ser. No. 849,638

1 Claim. (Cl. 42—58)

This invention relates to a toy revolver and more particularly to improvements in the cylinder illustrated in my Patent No. 2,912,780, dated November 17, 1959.

One of the objects of the invention is to provide a cylinder utilizing two-piece cartridges including a separable slug and a shell and, wherein, the front end of the slug or bullet will abut directly against a solid flat inner surface of the front wall of the cylinder. In that connection, the invention contemplates a cartridge wherein the slug itself is provided with a solid imperforate rear wall which is intended to form an anvil for a cap confined between a single opening in the rear end wall of the shell and the slug, so that the cap will be detonated directly by the gun hammer and smoke from the cap cannot pass out the front end of the cylinder into the barrel.

Another object of the invention is to provide a shell wherein the single opening in the rear end wall is of a size to fully expose the fulminate portion of the cap while its edges will be clamped between the rim of the opening and the rear end of the bullet.

Another object of the invention is to provide a cylinder which is safe from the standpoint that it cannot be readily modified for conversion to use a standard cartridge.

With the above and other objects in view which will appear as the nature of the invention is better understood, the invention consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings, in which:

Figure 1 is a side elevation of a toy revolver including a cylinder having the improvements described herein.

Figure 2 is a side elevation of the cylinder.

Figure 3 is a longitudinal cross section of the cylinder of Figure 2.

Figure 4 is an elevation of the rear end wall of the cylinder.

Figures 5 and 6 are cross-sectional views taken on the lines 5—5 and 6—6 of Figure 3.

Figure 7 is a front elevation of the cylinder.

Figure 8 is an elevation of the rear wall of the shell.

Figure 9 is a side view of a percussion cap.

Figure 10 is a side elevation of the cartridge.

Figure 11 is a longitudinal section of the assembled cartridge of Figure 7.

Figure 12 is a detail longitudinal cross-sectional view of a modified form of cylinder.

Similar reference characters designate corresponding parts throughout the several figures of the drawing.

As will be seen from the drawing, Figure 1 illustrates a toy revolver including a hollow barrel A whose sections are held together by a fastening A'; a stock B; and a cylinder C rotatably mounted on shaft D, and embodying the present improvements. This cylinder intended to be rotated upon the movement of trigger T by any conventional lever and ratchet mechanism such for example

as shown in the Brubaker Patent No. 2,088,891, dated August 3, 1937.

From the standpoint of the improvements in the cylinder, it is immaterial whether the same is used in a toy revolver wherein the cylinder swings laterally outward from the barrel shown in the above patent; whether the barrel is pivoted to the forward portion of the stock to "break" after the fashion of Patent No. 2,855,715; or whether the cylinder has integral stub shafts journalled between the halves of the gun casting.

The cylinder C is provided with an annular side wall 1, a relatively thick front wall 2 which, except for a central opening 3 only for the shaft D is solid. The inner face 4 of the front wall 2 is completely flat or planar, and the rear wall 5 has a plurality of openings 6 to receive the simulated bullets E shown in Figures 8–11, and is also provided with a ratchet ring 7. In addition, the inside face of the rear wall has fixed thereto an externally fluted cartridge supporting element 8 provided with a central opening 9 which aligns with opening 3 in the front wall to complete rotatable mounting on the shaft D.

As will be clearly seen from Figures 3, 5 and 6, the inner face 4 of the front wall is completely solid or imperforate where the front end of the slugs of the bullet abut, and the only opening therein is the opening 3 which is intended to receive the spindle D upon which the cylinder is rotatably mounted.

As illustrated in Figure 7, the cartridge E includes a hollow shell 10 whose rear end is provided with an opening 11 to receive a cap 12. The opening 11 is surrounded by a relatively small rim 13 which enables the edge of the cap 12 to be supported and expose the fulminate charge 12^a directly to the hammer H actuated by the trigger T. The body of the slug 14 is partially hollow as indicated at 15 merely to save metal, but, the rear end of the slug is closed as indicated at 16 to provide a substantial anvil for the detonation of the cap and prevent gases and smoke from passing out end 15^a.

Assuming that the various openings 6 have the two-piece cartridge shown in Figure 7 assembled therein, it will be understood that the front end 15^a of the slug of the cartriidge abuts with the flat imperforate inner face 4 of the front wall of the cylinder. Because of the flat front wall having no opening, and the slug portion of the cartridge also being closed at its rear end, no smoke will pass through the barrel A. It has been found that the arrangement shown provides an exceptionally good detonating action and, moreover, even if it should be sought to place a standard bullet in the cylinder, it would be prevented from leaving the cylinder and passing through the barrel A. This is a safety factor in addition to the usual fastening A' which holds the opposite sections of the barrel together.

Referring to Figure 12, the cylinder C' is provided with the solid annular side wall 17 and the solid annular front wall 18. The rear end is open to receive a rear wall 19 having openings 20 for the insertion of cartridges of the type shown in Figure 10. The rear wall 19 is integrally provided with a fluted cartridge supporting element 21 and a boss 22 having ratchet pins 23. The solid front wall 18 has an axial pivot post 24. The boss 22 on the rear wall is provided with a pivot post 25 axially aligned with post 24 and both fit in their respective complementary grooves in the two half sections of the pistol which are held together by screws or equivalent fastenings A'. This arrangement provides no opening whatever in the front wall 18 because the pivot posts 24 and 25 obviate the necessity of a through shaft or a short shaft on the order of D shown in Figure 1. When the two half sections of the pistol are cast in the usual manner, journal recesses are provided for 24 and 25; the

cylinder laid in place; and the halves are connected together by the fastening as above described.

I claim:

In a toy revolver having stock and barrel portions, the combination, comprising, simulated two-piece cartridges each of which comprises a shell having a back wall with a single central opening and a slug having a rear end portion for telescopic engagement within the shell to maintain the periphery of an explosive cap between the inner edge of the slug and the rim of the shell surrounding said opening and with its fulminate portion exposed through said opening, said rear end portion of the slug being solid to provide a firm anvil for said fulminate portion and preventing the passage of smoke, a cylinder mounted between said barrel and stock portions for rotation by a synchronized hammer and trigger mechanism, a front wall of the cylinder having a solid web portion with a flat inner face engaged by the

front end of the slug, a cartridge support on and extending from the inner face of the rear wall of the cylinder, and said rear wall also having an annular series of cartridge receiving openings arranged about said cartridge support, and a plurality of angularly spaced ribs on said cartridge support for maintaining said shells in axial relation to said openings, whereby the cartridges are supported with the cap in position to be engaged by the hammer passing through said opening and the front end of the slug abutting against the inner flat surface of said solid web portion of the front wall.

References Cited in the file of this patent

UNITED STATES PATENTS

1,902,708	Keyston	Mar. 21, 1933
2,655,755	Nichols	Oct. 20, 1953