

May 18, 1926.

J. W. BOYCE

1,585,075

TOY CARTRIDGE

Filed Feb. 10, 1925

Fig. 1.

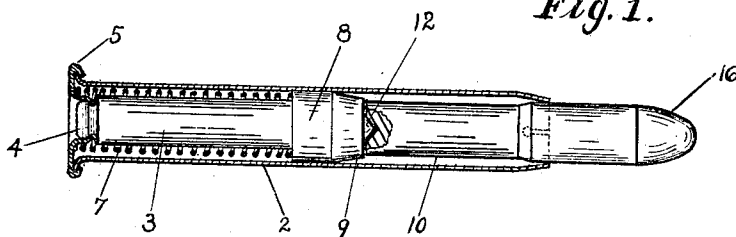


Fig. 2.

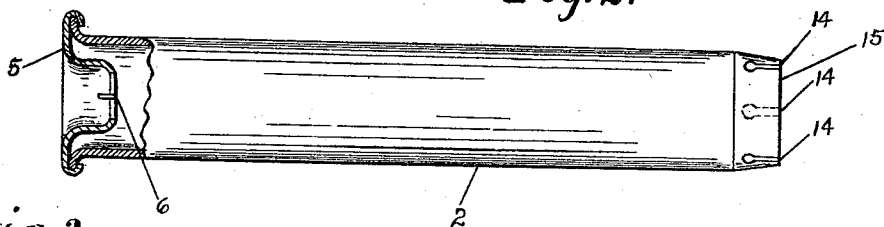


Fig. 3.

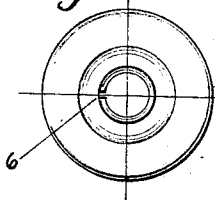


Fig. 4.

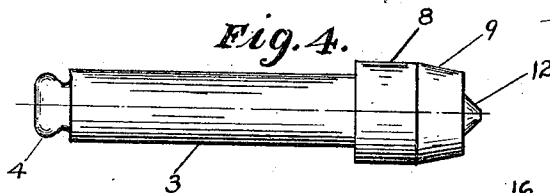
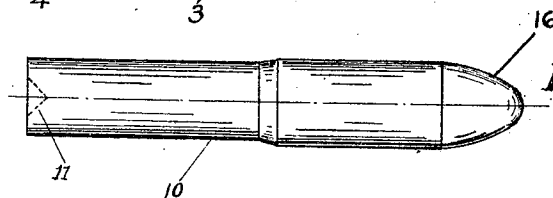


Fig. 5.



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TOY CARTRIDGE.

Application filed February 10, 1925. Serial No. 8,219.

This invention relates to a toy cartridge and among the objects of the invention are the provision of an article of this character which is simple in construction and effective in action and by which amusing and entertaining effects are obtained.

In the drawing accompanying and forming part of the present specification, there is shown in detail a form of embodiment of the invention which, to enable those skilled in the art to practice the same, will be set forth fully in the following description. I am not restricted to this disclosure; I may depart therefrom in a number of particulars within the scope of the invention defined by the claims following such description.

Referring to said drawing:

Fig. 1 is a longitudinal sectional view of a form of the device.

Fig. 2 is an enlarged side elevation of the shell portion with the base in section.

Fig. 3 is an elevation as seen from the left in Fig. 2.

Fig. 4 is a side elevation of the impeller.

Fig. 5 is a side elevation of the projectile with its frusto-conical portion.

Like characters refer to like parts throughout the several views.

The device includes in its construction a shell, as 2, of practically cylindrical hollow construction and which may be made from sheet metal rolled into proper shape or otherwise. The shell receives in it an impeller 3 which is practically of cylindrical formation and which has at its rear a stud, as 4, which is practically of spherical shape and which fits the cylindrical member, as 5, integral, as shown, with the base of the shell 2. The member 5 has in it the slit or kerf 6 to removably receive the stud 4 and is so constructed that it embeds stud 4 in such a manner as to prevent accidental discharge as shown in Fig. 1.

Initially the shank or reduced portion of the impeller 3 receives around it the coiled spring 7 which initially is under tension, as shown in said Fig. 1, so as to provide the impelling force for said impeller 3. The front end of the spring acts against the head 8 which slidingly fits the shell 2 and also

against the back end of the case 5, as shown in said Fig. 1. The head 8 of said impeller slidingly fits the shell 2 and its conical portion 12 is inter-locked with the projectile 10. As shown, the projectile 10 has in its rear a conical seat 11 to receive the conical extension 12 on the frusto-conical portion 9 of the impeller. This construction centers the projectile 10 in the device, as represented best in said Fig. 1.

The frusto-conical head portion of the shell 2 has in it several longitudinally extending kerfs 14 by which there is produced at the end of the projectile shell 2 a series of releasably engaging fingers 15 which engage the enlarged portion of the projectile 10 and releasably hold it in position so that when the projectile is released, the impeller 3 can advance the projectile from the shell 2. The projectile 10 has at its forward end a nose 16 made of rubber or some other soft material.

What I claim is:

1. The combination of a shell, a projectile in the shell, an impeller back of the projectile and a compressible spring back of the impeller, the impeller having at its rear a stud and the base of the shell having a cylindrical portion to releasably engage the stud and so constructed as to embed the stud to prevent accidental discharge.

2. The combination of a shell, a projectile in the shell, the discharge end of the shell having a series of resilient fingers holding the projectile against accidental forward movement, an impeller acting against the projectile and a compressible spring to operate against the impeller.

3. The combination of a shell, a projectile in the shell, the discharge end of the shell releasably holding the projectile, an impeller to engage the projectile and a compressible spring back of the impeller, the impeller having at its rear a stud and the base of the shell having a cylindrical portion to releasably engage the stud.

In testimony whereof I affix my signature.

JAMES W. BOYCE.