

May 29, 1928.

1,671,364

A. GANGNES
FIREARM CARTRIDGE
Filed Dec. 10, 1923

Fig. 1.

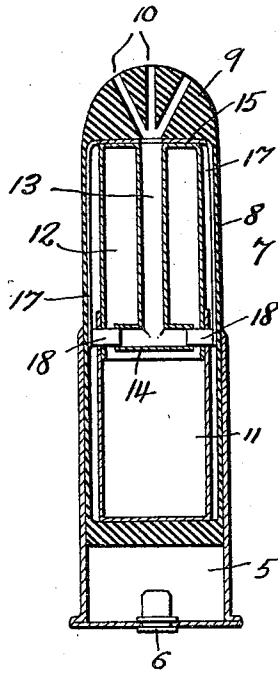


Fig. 2.

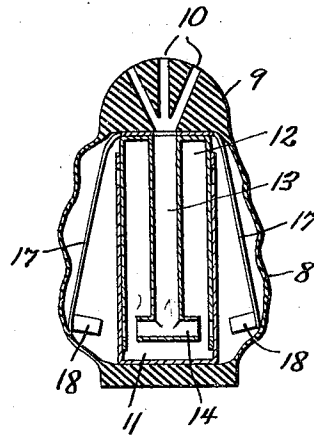


Fig. 3.

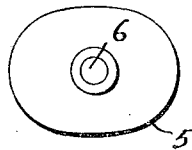
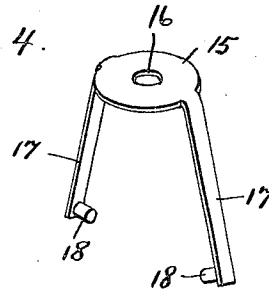


Fig. 4.



Inventor

Arnt Gangnes

By *Clarence A. O'Brien*
Attorney

Patented May 29, 1928.

1,671,364

UNITED STATES PATENT OFFICE.

ARNT GANGNES, OF LOS ANGELES, CALIFORNIA.

FIREARM CARTRIDGE.

Application filed December 10, 1926. Serial No. 153,922.

This invention relates to new and useful improvements in cartridges that may be used in various types of fire arms, and has for its primary object to provide an article of this character wherein the projectile portion of the cartridge is so constructed as not to penetrate the body, but to automatically project upon a person a brightly colored fluid having a disagreeable odor so that the person, for instance a thief, kidnaper, or other person who has committed an unlawful deed may be readily marked for arrest without in any manner whatever harming said individual.

A further and important object is to provide a cartridge of this character wherein the projectile unit is constructed for ejecting a supply of fluid as soon as the projectile strikes its objective.

A still further and important object is to provide a cartridge of this character that is extremely simple of construction, inexpensive of manufacture, and one that is highly well adapted for all the purposes intended.

With the foregoing and other objects in view as will become apparent as the nature of the invention is better understood, the same comprising the novel form, combination, and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a detail longitudinal section of a fire arm cartridge constructed in accordance with the present invention.

Figure 2 is a similar view of the projectile unit in collapsed condition and after it has struck its mark, and

Figure 3 is a bottom plan view of the cartridge, and

Figure 4 is a perspective view of the apertured plate and the spring fingers carried thereby.

Now having particular reference to the drawing, said cartridge consists of a metallic shell 5 having an explosive cap 6 at the rear end thereof together with a projectile unit 7 arranged within the open end of said shell as clearly disclosed in Figure 1. The shell 5 is of generally conventional formation, while the unit 7 is of elongated cylindrical formation consisting of a rubber or other flexible elongated cylindrical body 8 closed at its opposite ends, the outer end of

said body being of thickened formation so as to provide an impact nose 9 through which is formed radiating fluid passages 10 of predetermined number that have communication with the interior of the body as also disclosed in Figure 1.

Arranged within the cylindrical body 8 of the projectile unit is a pair of telescopic metallic cylinders 11 and 12 that are normally in extended relation as disclosed in Figure 1 and have therein a supply of fluid preferably of the character heretofore mentioned. Extending longitudinally within the outermost cylinder 12 is a tube 13 that opens at the forward end of the cylinder and that is formed at its inner end with a right angular branch 14, the ends of which are in registration with registering openings in the overlapped ends of the cylinders 11 and 12 when the cylinders are extended for a purpose hereinafter more fully described.

Arranged upon the outer end of the outermost cylinder 12 is a metal plate formed with a central opening 16 for registration with the tube 13 which metal plate is formed at opposed points on its periphery with inwardly extended normally outwardly sprung spring fingers 17—17, the free ends of which are formed with inwardly projecting circular pins 18—18. Obviously, in the manufacture of the cartridge the metallic cylinders 11 and 12 are first filled with the fluid through the pipe 13 and after the finger carrying plate 15 has been disposed upon the ends of the outermost cylinder, and the fingers 17—17 swung inwardly so as to engage the pins 18—18 through the registering openings in the overlapping ends of the cylinder, and in the ends of the branch 14 of the tube 13 the rubber or other material body is formed therearound and the whole projectile unit then inserted within the shell 5 to such an extent that the shell will maintain the spring fingers against outwardly swung position so as to prevent the release of the cylinders 11—12 with respect to each other.

The inner end of the projectile is in spaced relation with the cap carrying wall of the shell 5 in order that a charge of powder may be inserted in the shell in back of the projectile and obviously when this powder is exploded, the projectile will be thrown from the shell. As soon as the projectile leaves the shell 5 the spring fingers

17—17 will spring outwardly for disconnecting the cylinders 11 and 12. Obviously, as soon as the nose of the projectile strikes an object the force of the same will cause the collapsing of the projectile and the forced discharge of the fluid through the branch 14 of the tube 13 through said tube as well as through the passages 10 in the nose 9 of the projectile body.

In view of the foregoing description when considered in conjunction with the accompanying drawing it will at once be apparent that I have provided a highly novel, simple and efficient fire arm cartridge that is well adapted for all the purposes heretofore designated, and even though I have herein shown and described the invention as consisting of certain detail structural elements, it is nevertheless to be understood that minor changes may be made therein without affecting the spirit and scope of the appended claims.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a fire arm cartridge of the character described, an explosive powder, and firing cap carrying shell, a projectile arranged within the shell, said projectile consisting of a hollow collapsible body for receiving a fluid supply and having fluid discharge openings at its forward end, means within the body for maintaining the projectile in extended position when the projectile is arranged within the shell, means for preventing the escape of the fluid through the openings when the projectile is arranged within the shell, and automatic means for opening the flow of the fluid to said openings in the body when the projectile is discharged from the shell, said projectile adapted to be collapsed when striking an object so as to eject the fluid therefrom.

2. In a fire arm cartridge of the class described, an explosive powder and fire cap carrying shell, a projectile arranged within the shell, said projectile comprising a hollow collapsible body closed at its respective ends, the outer end of the collapsible body being provided with fluid discharge open-

ings, a pair of telescopic metallic cylinders arranged within the hollow collapsible body and adapted to contain a fluid, the outer cylinder being provided with a fluid discharge tube, means for securing the telescopic sections in an extended position to maintain the projectile in an extended position while in the shell, and additional means associated with the aforementioned means for automatically releasing the first mentioned means when the projectile is discharged from the shell, whereby the body is collapsed when the outer end thereof strikes an objective, and simultaneously causing the discharge of the fluid in the cylinders through the tube and the discharge openings in the outer end of the body.

3. In a fire arm cartridge of the class described, an explosive powder and firing cap carrying shell, a projectile arranged within the shell, said projectile comprising a hollow collapsible body, a pair of telescopic metallic cylinders arranged within the body and adapted to contain a fluid, the outer end of the collapsible body providing an impact member which is formed with fluid outlet openings, a tube in the outer cylinder and communicating with the outlet openings in the impact member, the inner adjacent ends of the cylinders being provided with openings adapted for registration when the cylinders are extended, means for disposition within the registering openings for holding the cylinders in an extended position while the projectile is within the shell, and normally outwardly urged members connected with the aforementioned means adapted to automatically disengage said means from the registering openings in the adjacent ends of the cylinders when the projectile is discharged from the shell, the projectile adapted to be collapsed when the impact member strikes an objective, the fluid in the cylinders being simultaneously discharged therefrom through the tube and through the outlet openings in the impact member.

In testimony whereof I affix my signature.

ARNT GANGNES.