July 22, 1924. 1,502,400

H. SAFFORD

INFLAMMABLE SHELL

Filed Jan. 25, 1924

Fig. 1.

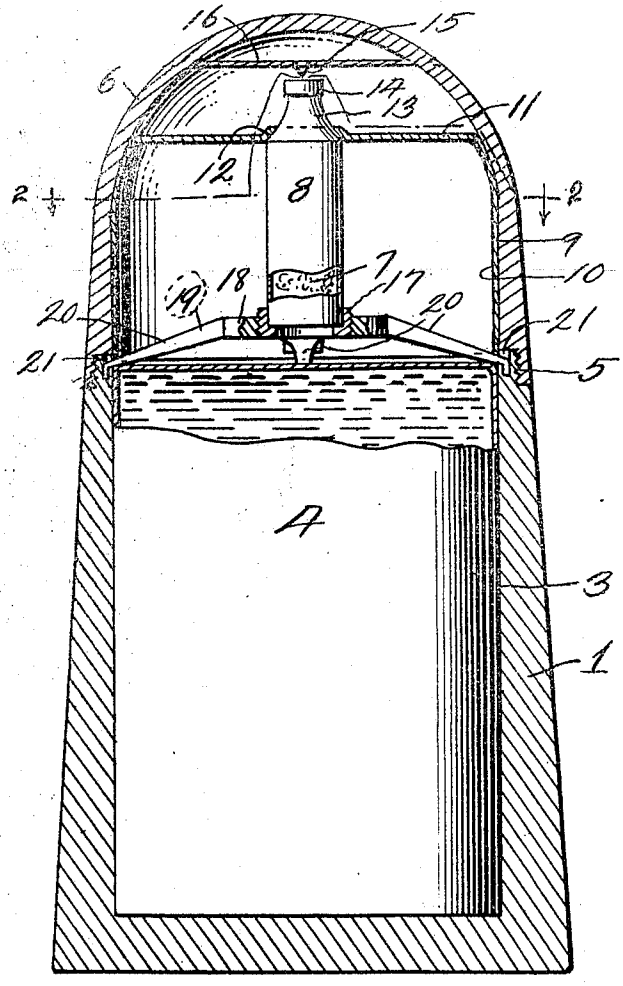
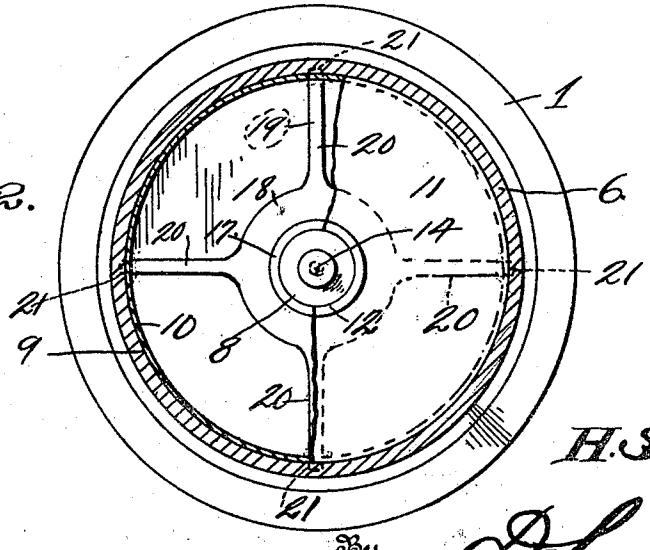


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY SAFFORD, OF LITTLE ROCK, ARKANSAS.

INFLAMMABLE SHELL.

Application filed January 25, 1924. Serial No. 688,487.

To all whom it may concern:

Be it known that I, HENRY SAFFORD, a citizen of the United States, residing at Little Rock, in the county of Pulaski, State of Arkansas, have invented a new and useful Inflammable Shell; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to inflammable shells or projectiles, and has for its object to provide a device of this character wherein a shell is provided with a container having an inflammable material, for instance gasoline, and which inflammable material is ignited upon impact of the shell with an object.

A further object is to provide the shell with a container having a bursting charge therein, such for instance as dynamite, and which container is provided with a firing cap in registration with a firing pin carried by a collapsible head on the projectile.

A further object is to support the bursting charge container spaced from the walls of the shell, thereby insuring safety in the handling of the shell, and preventing accidental discharge except upon impact, at which time the end of the shell is crushed.

A further object is to support the inner end of the bursting charge container on a spider, detachably mounted in apertures in the inner wall of the shell, which spider also maintains the inflammable liquid container in position.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a vertical transverse sectional view through the projectile.

Figure 2 is a horizontal sectional view taken on line 2—2 of Figure 1.

Referring to the drawing, the numeral 1 designates the main body of the shell, the chamber 3 of which is adapted to receive an inflammable liquid container 4, in which any kind of inflammable liquid may be disposed, for instance gasoline. Threaded on the open end of the main body 1 of the projectile at 5 is a collapsible cap 6, which cap is adapted to be crushed upon impact of the shell, for discharging a bursting charge 7 in the container 8 for shattering the container 4 and igniting the liquid within the container 4. The bursting charge 7 may be formed from any kind of explosive, preferably dynamite, which will explode upon impact, however it is to be understood that any other kind of a detonating charge may be used.

Disposed within the chamber 9 of the collapsible cap 6 is a cylindrical movable casing 10, the wall 11 of which is provided with a conically shaped opening 12, which receives the conically shaped end 13 of the bursting charge casing 8, thereby holding the same in axial position with its igniting cap 14, in registration with the firing pin 15 carried by the wall 16 of the cap 6, where said firing pin upon crushing of the cap 6 will pierce the firing cap 14, and ignite the bursting charge 7. The lower end of the bursting charge casing 8 is disposed in a channel of a bushing 17, which bushing is threaded into the annular portion 18 of a spider 19, the arms 20 of which are disposed in recesses 21 in the base 1, consequently the bursting charge casing is supported in a manner whereby it cannot become easily ignited or exploded except upon the crushing of the cap 1. It will be noted that all of the bursting charge supporting mechanism is disposed within the cap of the shell, and the shell may be easily and quickly assembled. It will also be noted the device is simple in construction, the parts reduced to a minimum and by providing the adjustable bushing 17, the bursting charge casing 8 may be positively held by the bushing in combination with the wall 11 of the lining 10, and that different lengths of bursting charge casings 8 may be held, which would be desirable according to the kind of bursting charge used.

The invention having been set forth what is claimed as new and useful is:—

1. An inflammable shell comprising a base having a chamber therein, a cap threaded on said base, a liquid container disposed within the chamber of the base, a spider adjacent the forward end of the liquid container and having diverging radial arms, the outer

ends of said arms being disposed in recesses in the wall of the chamber of the base, an adjustable bushing axially disposed in the spider, a bursting charge container having its inner end mounted in the adjustable bushing, the outer end of the bursting charge container being tapered and mounted in a tapered opening of a support, a cap carried by the outer end of the bursting charge container and a firing pin carried by the threaded cap in registration with the bursting charge container cap.

2. A shell comprising a chambered base, a chambered cap threaded on the outer end of said base, a liquid container disposed within the base, a spider supported in the outer end of said base and having radial arms, the ends of said arms being mounted in recesses in the wall of the chamber of the base adjacent the outer end of the liquid container, a casing disposed within the chambered cap, and engaging the arms of the spider, a bursting charge casing supported by said spider and casing within the chambered cap and a firing pin carried by the chambered cap.

3. The combination with a shell having a threaded cap thereon, a liquid container disposed within the shell, of means for supporting a bursting charge within the threaded cap, said means comprising a spider supported in recesses in the shell adjacent the liquid container, an adjustable bushing carried by the spider, a bursting charge container supported in said bushing, the outer end of the bursting charge casing being tapered and supported in a tapered opening, and a firing pin carried by the threaded cap in registration with the bursting charge casing.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY SAFFORD.

Witnesses:
J. H. RANDALL,
E. D. HERSON.