March 27, 1945. S. W. FIRTH 2,372,264

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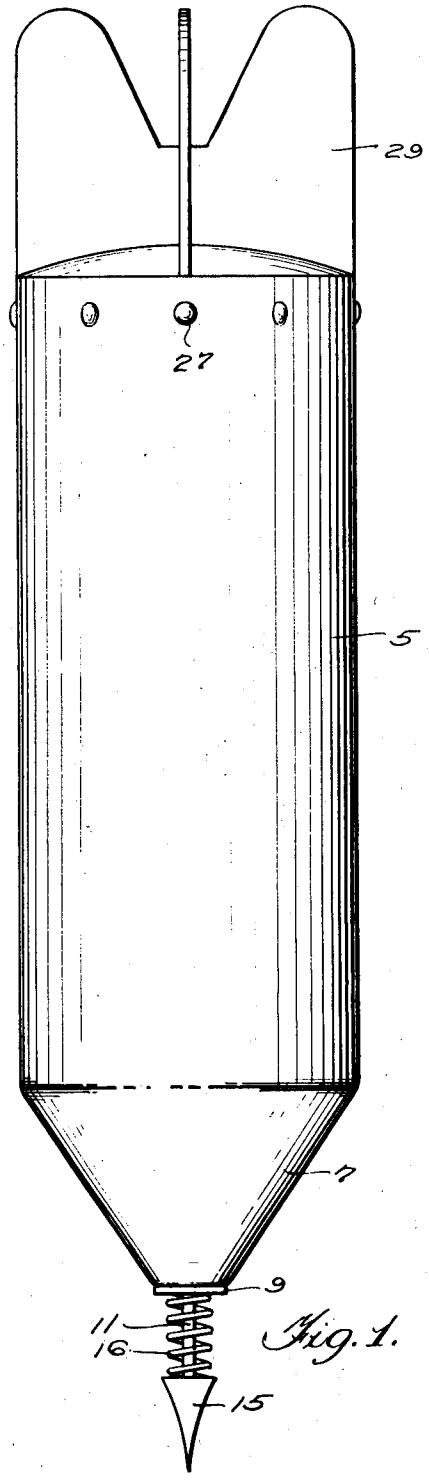


Fig. 1.

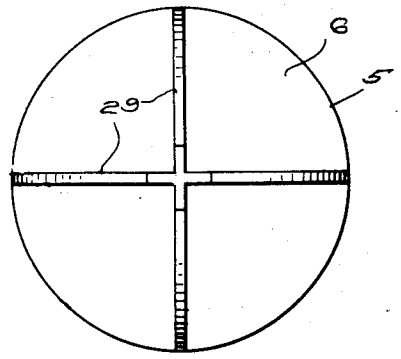


Fig. 2.

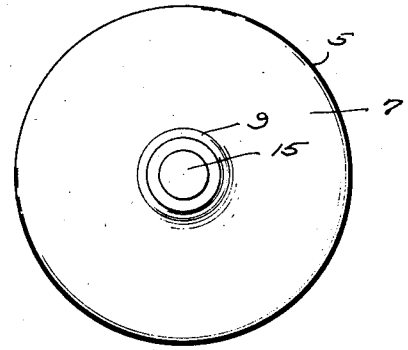


Fig. 3.

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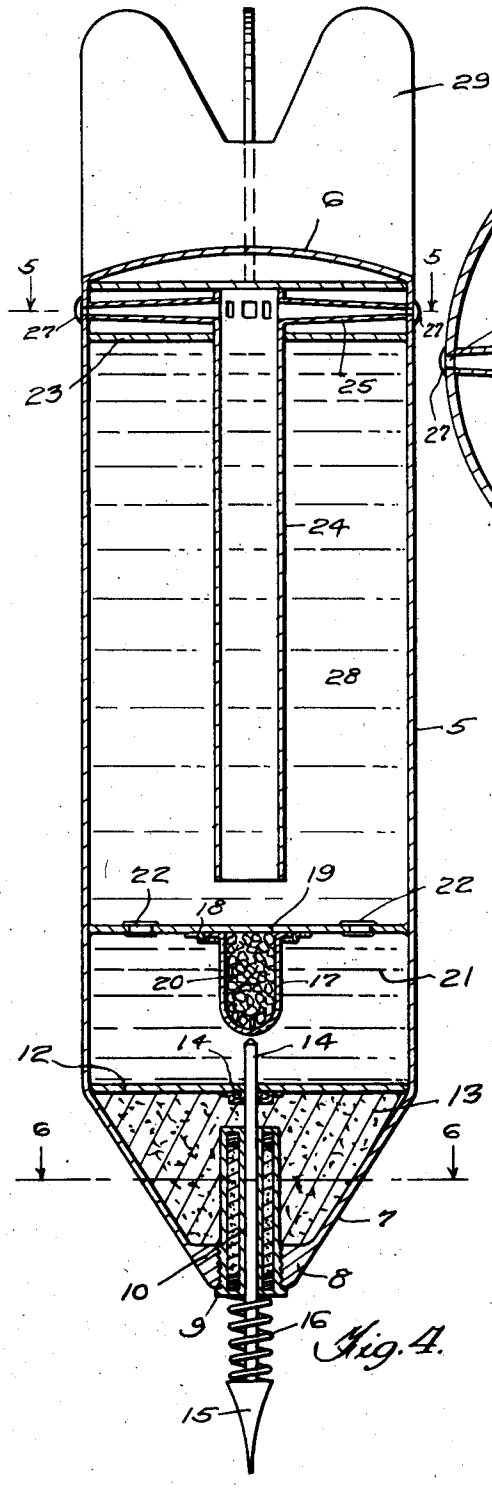


Fig. 4.

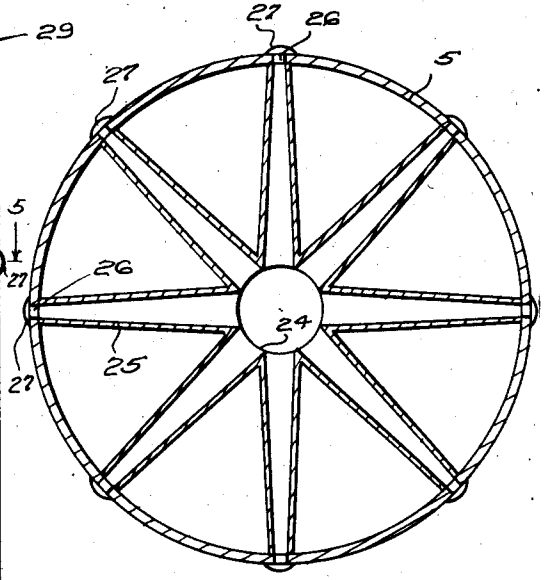


Fig. 5.

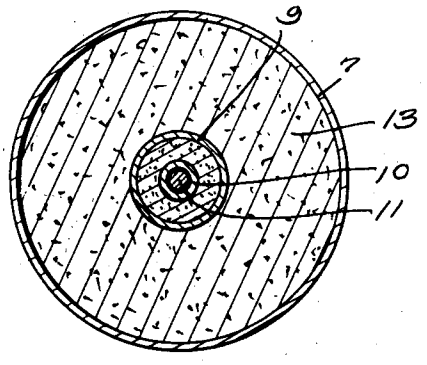


Fig. 6.

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Patented Mar. 27, 1945 2,372,264

UNITED STATES PATENT OFFICE

2,372,264

BOMB

Stephen W. Firth, Webb City, Mo.

Application February 4, 1942, Serial No. 429,541

1 Claim. (Cl. 102—6)

This invention relates to now and useful improvements in bombs of the incendiary type.

The principal object of the present invention is to provide a bomb which employs gasoline or some other highly volatile fluid which when it reaches its objective releases a heavy cloud of gas which is then ignited, the bomb serving to be destructive both from an explosive standpoint and that of incendiarism.

Other objects and advantages of the invention will become apparent to the reader of the following description.

In the drawings:

Figure 1 represents a side elevational view of the bomb.

Figure 2 is a top plan view.

Figure 3 is a bottom plan view.

Figure 4 is a longitudinal section.

Figure 5 is an enlarged cross-sectional view taken substantially on the line 5—5 of Figure 4.

Figure 6 is an enlarged sectional view taken substantially on the line 6—6 of Figure 4.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the bomb is made up of a jacket 5 having a closed upper end 6 and a conical-shaped lower end 7. This end terminates in a rather snub thick end portion 8 having a threaded bore therethrough for receiving a time fuse unit 9. It is preferable that this unit be constructed with a guideway 10 through which a pin 11 is slidable.

The interior of the conical end portion 7 is separated from the rest of the interior of the bomb by a partition 12, thus defining a chamber for the reception of gelatin dynamite or some other high explosive 13. This partition 12 has a packing gland 14 through which the rod 11 is slidable.

The lower end of the rod 11 has a pointed head 15 which will assist in piercing an objective or sticking in the ground to hold the bomb in upright position. Interposed between the head 15 and the time fuse unit 9 is a coiled compression spring 16, which serves to hold the upper end of the rod 11 normally from the glass vial 17 which is held by suitable securing means 18 to the underside of a partition 19 situated a slight distance upwardly in the jacket 5 from the partition 12. This glass or fragile vial or container 17 contains a load of carbide 20, the container 17 being liquid-proof depending into a volume 21 of water. The partition 19 has openings therein normally closed by plugs 22 which will yield only at a certain pressure, such as will be built up by contact of the carbide 20 with the water 21.

Adjacent the top 6 is another partition 23 downwardly through which depends a stack 24, the upper end of which, that is, the portion between the partition 23 and the top 6 being of a manifold construction, having a plurality of spouts 25 radiating therefrom and terminating at the side of the jacket 5 where openings 26 are located. These openings are normally closed by small plugs 27 which are dislodged when a certain predetermined pressure is imposed thereon.

The chamber 28 defined by the partitions 19 and 23 contains gasoline or some other highly volatile liquid.

The upper end of the jacket 5 is provided with fins 29.

It can now be seen that when the bomb is released from an aircraft, it drives down with its lower end pointing earthward and guided by the fins 29. The head 15 strikes first resulting in the fragile container 17 riding against the upper end of the pin 11, breaking and discharging its load of carbide into the water 21. A pressure is thus developed in the chamber containing the water 21, which results in the dislodging of the plugs 22. This pressure builds up against the gasoline in the chamber 28 resulting in the gasoline spraying from the bomb, for instance, as the bomb passes downwardly through several floors of a building. The gasoline under pressure dislodges the plugs 27 and the gasoline in both liquid and gaseous form will escape and leave a highly inflammable path which will be set off when the time fuse 9 goes off igniting the dynamite gelatin or other explosive 13.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

A bomb comprising a jacket having a leading end, a plurality of transverse partitions in said jacket dividing the same into a front chamber and a rear chamber, one of the partitions separating said chambers, the front chamber being loaded with water, and the rear chamber with volatile liquid, a rupturable container projecting from said one partition into said front chamber and being loaded with carbide for mixing with the water to form a gas for expelling the volatile liquid out of the rear chamber, a plunger in said leading end for rupturing said container under impact of the plunger against the target, plugs in said one partition displaceable by the pressure of gas formed in the front chamber to admit such gas to the rear chamber for expelling said volatile liquid, and a volatile liquid manifold leading from said rear chamber to the outside of the jacket and provided with pressure blow-out plugs therein.

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