Sept. 13, 1932. T. P. DUNCAN, JR 1,877,232

INCENDIARY BOMB

Filed Feb. 11, 1932

Fig. 1

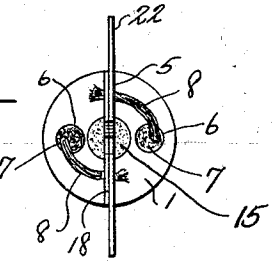


Fig. 2

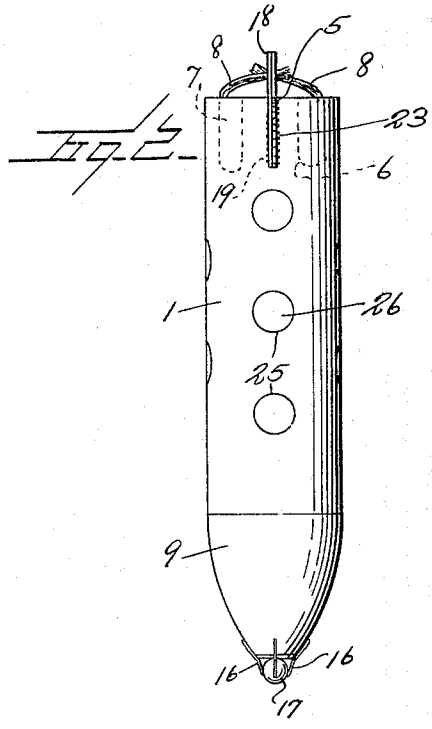


Fig. 4

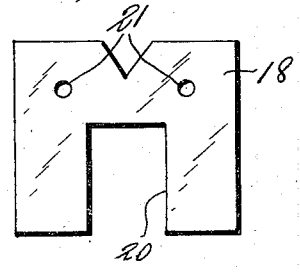
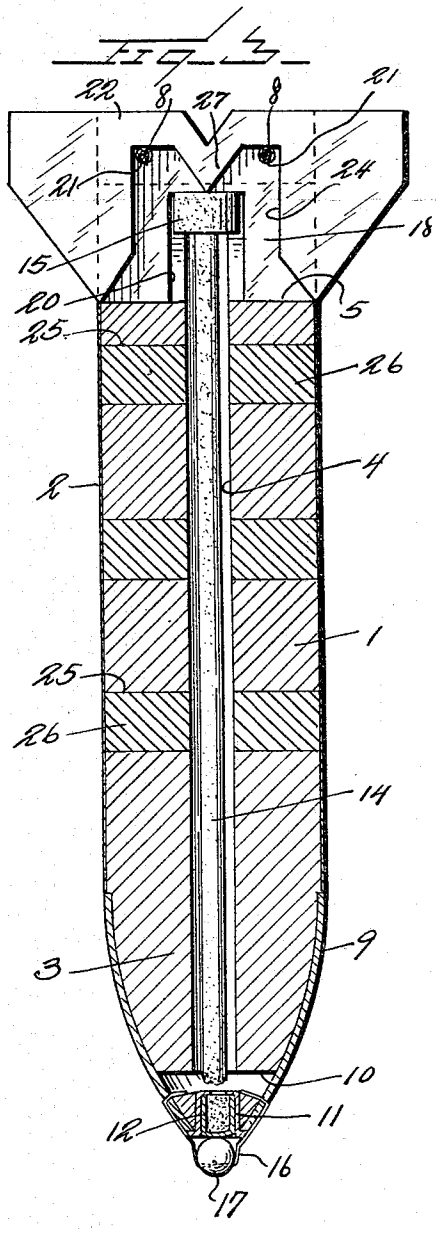


Fig. 3



Inventor

T. P. Duncan, Jr.

By Watson E. Coleman

Attorney

Patented Sept. 13, 1932 1,877,232

UNITED STATES PATENT OFFICE

THOMAS P. DUNCAN, JR., OF NEWPORT NEWS, VIRGINIA

INCENDIARY BOMB

Application filed February 11, 1932. Serial No. 592,363.

This invention relates to incendiary bombs, and it is an object of the invention to provide a device of this kind which is small in size yet highly effective in use.

Another object of the invention is to provide a device of this kind which is adapted to be dropped from an aircraft and which is so constructed as to ignite after striking.

The invention also has for an object to provide a device of this kind provided with tail wings for guiding the bomb in its flight and which wings are of a highly inflammable character to assist in the starting of the desired conflagration.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved incendiary bomb whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:—

Figure 1 is a view in top plan of the rear end of a bomb constructed in accordance with an embodiment of my invention;

Figure 2 is a view in side elevation of the bomb as herein disclosed;

Figure 3 is an enlarged longitudinal sectional view taken through the device as herein embodied with certain of the parts in elevation;

Figure 4 is a view in elevation unapplied of one of the tail members herein employed.

My improved bomb as herein disclosed comprises an elongated cylindrical body member 1 of wood or kindred material saturated with kerosene or other inflammable material and which saturated material is held against evaporation by a coating 2 of wax or the like disposed over the peripheral surface of the body member 1. This body 1 has one end portion gradually reduced in diameter to provide a point-like extremity to facilitate the travel of the device through the air, and said body 1 axially thereof is provided with a bore 4 of a relatively large diameter. The bore 4 at the rear end of the body 1 is intersected by a kerf 5 disposed radially of said end portion of the body 1.

The rear end of the body 1 at opposite sides of the kerf 5, as particularly illustrated in Figure 1, is provided with diametrically aligned and relatively deep pockets 6 within each of which is snugly engaged a filler 7 of highly inflammable material and each of which fillers 7 has extending outwardly therefrom a relatively long wick 8.

The forward or pointed end portion 3 of the body 1 has fitted thereon a cap 9 preferably of metal and which provides a sheathing for the forward end of the body 1 to facilitate the passage of the bomb into or through its target. This cap or shell 9 extends in advance of the blunt or flattened forward end 10 of the body 1 and has its forward extremity provided with an inwardly disposed cup-like member 11 adapted to have placed therein a percussion cartridge 12 or kindred element.

Disposed through the bore 4 of the body 1 is a slow burning fuse 14, the forward end of which terminates in close proximity to the applied cartridge 12. The opposite end portion of this fuse 14 carries a highly inflammable mass or body 15 which readily and quickly bursts into flame upon being reached by the fire or spark travelling up along the fuse 14 and which fuse 14 is ignited by the flame produced by the firing of the cartridge 12.

The outer end portion of the cap 9, as herein disclosed, is provided with a series of inwardly disposed fingers 16 or the like which hold substantially into contact with the applied cartridge 12 a spherical member 17 of metal and which member 17 as a result of impact results in the desired discharge of the cartridge 12 whereby is obtained the desired ignition of the slow burning fuse 14.

Inserted within the kerf 5 in the body 1 is a plate 18 of a highly inflammable material and which plate is of a width substantially equal to the diameter of the body 1 and is held in desired position with respect to the body 1 to

a wall of the kerf 5 by a suitable adhesive, as indicated at 19 in Figure 2. The lower central portion of this plate 18 is cut-out, as at 20, so that the plate 18 when applied will bridge the body or mass 15, thus allowing the plate to be applied as desired and in a way to be readily subjected to the flame from the mass or member 15 when burning. This plate 18 is of a size to extend beyond the rear end of the body 1 when applied and said extended portion is provided with the spaced openings 21 through each of which is adapted to be threaded or inserted a wick 8 so that said wick 8 will be ignited upon burning of the plate 18 so that the requisite fire will be carried to the inflammable fillers 7 to further facilitate the igniting of the body 1.

Also extending within the kerf 5 at the rear portion of the body 1 is a second plate 22 also of a highly inflammable material, this plate being secured by a suitable adhesive, as at 23, to the second wall of the kerf 5. This plate 22 also has its central portion cut-away, as at 24, to bridge the wicks 8 threaded through the openings 21 of the plate 18 and also the mass or body 15 at the rear end of the fuse 14. This plate 22 extends beyond the rear end of the body 1 and also to opposite sides thereof whereby the applied plate 22 serves as a guiding member or wing for facilitating the dropping of the bomb to its target.

Upon the bomb striking its target as it passes through or into the target under the force of impact the possible stripping of the plate 22 from the body 1 will in no way affect the applied plate 18 which does not extend beyond the peripheral surface of the body 1. As the bomb strikes its target as before explained, the cartridge 12 is exploded resulting in the ignition of the fuse 14 whereby through the flame from the mass or member 15 and the ignited plates 18 and 22 fire will be carried by the wicks 8 to the inflammable fillers 7. Of course, the flame from the plates 18 and 22 as well as from the mass or member 15 will also tend to ignite the body member 1.

It is also of advantage to dispose radially through the body member 1 at desired points therealong the openings 25 each of which having applied therein a filler 26 of pitch or the like and which filler as a result of the heat from the burning bomb will melt and spread over the target whereby the resultant ignition of such spread pitch or the like will further assure the incendiary value of the bomb.

The upper portion of the plate 22 at the central parts of its cut-out portion 24 is provided with an inwardly disposed projection 27 thereby providing means for holding the fuse 14 together with its inflammable mass or member 15 in applied position within the body 1.

From the foregoing description it is thought to be obvious that an incendiary bomb constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. An incendiary bomb comprising a body of inflammable material, said body having a bore therethrough, a fuse extending through said bore, an inflammable mass carried by the fuse, and a potential means for igniting the fuse.

2. An incendiary bomb comprising a body of inflammable material, said body having a bore therethrough, a fuse extending through said bore, an inflammable mass carried by the fuse, and means operating upon impact for igniting the fuse.

3. An incendiary bomb comprising a body of inflammable material, said body having a bore therethrough, a fuse extending through said bore, an inflammable mass carried by the fuse, a potential means for igniting the fuse, an inflammable plate carried by the body and positioned adjacent to the inflammable mass, and a wick leading from the body and engaged with said plate.

4. An incendiary bomb comprising a body of inflammable material, said body having a bore therethrough, a fuse extending through said bore, an inflammable mass carried by the fuse, a potential means for igniting the fuse, an inflammable plate carried by the body adajcent to the inflammable mass, said plate extending beyond opposite sides of the body whereby said plate serves as a guiding medium for the device in its flight.

5. An incendiary bomb comprising a body of inflammable material, said body having a bore therethrough, a fuse extending through said bore, an inflammable mass carried by the fuse, a potential means for igniting the fuse, said body being provided with a kerf, a pair of inflammable plates arranged within the kerf, said plates being separate one from the other, one of said plates extending beyond opposite sides of the body to provide a guiding means for the body in its flight, and a wick leading from the body and engaged with the second plate.

6. An incendiary bomb comprising an inflammable body, an inflammable plate carried thereby and serving as a guiding medium for the bomb in its flight, and a potential means for igniting the plate.

In testimony whereof I hereunto affix my signature.

THOMAS P. DUNCAN, JR.