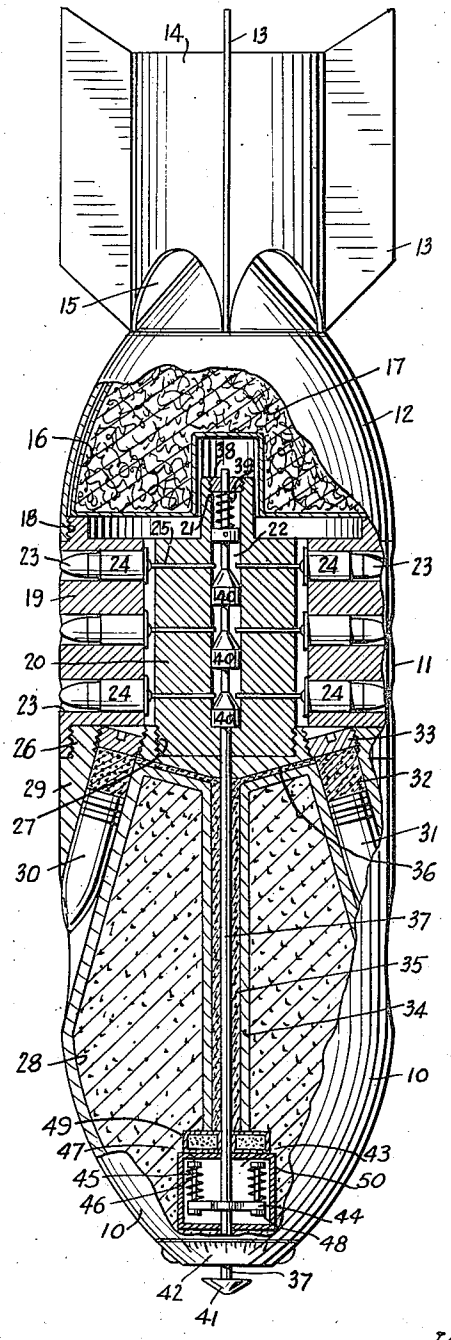
Sept. 26, 1944. J. BEBLO 2,359,192

BOMB

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BOMB

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1 Claim. (Cl. 102—5)

This invention relates to that class of projectiles, used in warfare, known as bombs, either aerial or aquatic.

An object of the invention is to provide a sectional bomb, its rear compartment shell having mounted upon it vanes adapted to maintain the bomb in a straight course and having combined with it a noise making device, as a whistle, while the interior of the compartment is filled with an incendiary substance adapted to cause combustion when the bomb is exploded.

A further feature is in the provision of an intermediate section provided with a plurality of radial recesses, each receptive of an independent center fire cartridge of suitable calibre, and having delayed action firing means.

Another purpose is to provide a bomb having a forward compartment to contain a high explosive charge, an adjustable timer for detonating the charge, and a plurality of projectiles disposed at an angle to the axis of the bomb, fired simultaneously with the main charge.

These objects are attained by the novel construction, combination and arrangement of parts hereinafter described and shown in the annexed drawing, constituting a graphical component of this disclosure, the figure being a partial side, partial longitudinal sectional view of a bomb made in accordance with the invention.

The bomb, in common with others, is cylindrical in cross section with conically tapered ends; it is composed of a front section 10, an intermediate section 11 and a rear section 12.

Extending outwardly beyond the rear section are a plurality of straight flat vanes 13, adapted to act as guide rudders, and connected by cylindrical segments 14, having openings 15 at their bases suited to produce whistling sounds during passage of the bomb through the air.

The main inner portion of the rear section contains a jacketed lining 16 holding a highly combustible liquid entrained in a saturable substance, as the absorbent wicking 17.

The intermediate section 11 is connected to the rear section 12 by screw threads 18, and consists of thick walled cylinder 19 spacedly enclosing an inner, circular block 20 having a reduced portion 21 reaching into the jacket 16 and containing an axial bore 22.

The outer cylinder 19 is provided with rows of radial openings 23 receptive of center-fire cartridges 24, each having a firing pin 25 movable in the block 20 and actuated by means later on described.

The front section 10 of the bomb is united by screw threads 26 with the intermediate section 11, while other screw threads 27 connect the block 20.

The main portion of the front section is utilized as a container 28 for a high explosive, the container tapering convergently towards its upper end, thus providing a solid annulus 29, plurally bored, as at 30, to receive bullets 31 having explosive charges 32 backed by caps 33.

The inner tubular wall 34 is supplied with an instantaneous fuse 35 having branches 36 leading to the charges 32, and passing axially through the main fuse 35 is a rod 37 extending into the block 20, the rod having a fixed collar 38 pressed downwardly by a spring 39.

Also fixed on the rod 37 are a series of conical cams 40 arranged to contact the firing pins 25 when the rod is forced inwardly, thereby exploding the cartridges 24.

On the extreme outer end of the rod 37 is fixed a button 41, which upon contact with a fixed object actuates the rod and thereby causes detonation of the main and subsidiary charges, as well as the cartridges.

Movement of the rod is limited by adjustment of a graduated stop sleeve 42, carried by threaded engagement on the extreme front end of the front section of the bomb.

Near the nose of the bomb, and formed concentrically about the axis of the bomb, is a housing 50 having opposed openings through which the rod 37 passes slidably. Carried rigidly on this rod within the housing 50 is a cross beam 44 having openings through its extremities in which pins 45 are slidably mounted at right angles to the beam. These pins have heads 47 facing toward, and adjacent, the roof 49 of the housing 50, and tail anchors 48 at their opposite ends. Coiled springs 46 surround these pins and normally urge the heads 47 upward, in an obvious manner. As soon as the bomb nose or button 41 strikes a target, the pins 45 are carried against the roof 49 and detonators 51 thereon to explode the charge in container 28 and ignite the fuse 35 and thus coincidentally fire the cartridges 30. The pyrotechnic discharge 17 is ignited as soon as the bomb bursts, by the actual flames or by the heat of the explosion of the discharge in container 28.

The calibrated sleeve 42 controls the axial rearward distance of travel permitted the button 41 and hence the rod 37, and from a chart or from memory the dialed positioning of the sleeve can be ascertained which will permit the rod 37 sufficient rearward travel to set off the radial fir-

ing pins 25, as well as the dial reading to position the sleeve so that such firing will be prevented; that is, in which the rearward travel of the rod 37 will be stopped by contact of the button 41 with the sleeve before the cams 40 reach the pins 25.

If it is desired to have the bomb be effective in a radial direction above the surface of the target, as, for instance, when it is dropped in a place where the men or material to be destroyed are spread on the surface, the sleeve 42 would be set to permit immediate discharge of the radial cartridges 24. But when it is desired to have the bomb penetrate a target, as, for instance, on a ship or where there are underground installations, the sleeve would be so set as to restrain the rod 37 from discharging the cartridges 24.

Having thus described the invention and set forth the manner of its construction and use, what is claimed as new and sought to secure by Letters Patent, is:

A bomb composed of three sections, respectively front, intermediate and rear, a pyrotechnic charge in said rear section, a plurality of annular rows of radially disposed cartridges in said intermediate section, an explosive charge in said front section, a series of obliquely disposed cartridges disposed circumjacent said explosive charge, means for detonating said explosive charge and coincidentally firing said obliquely disposed cartridges, a rod extending axially through all of said section, spring means to normally maintain said rod extended, cams on said rod to cause discharge of said radial cartridges, a sleeve threaded on the front end of said bomb surrounding said rod, a button on the outer extremity of said rod and normally spaced from said sleeve, said sleeve being rotatable to advance the same from said front end of the bomb toward said button to limit the rearward movement of said rod upon impact of the bomb upon a target, the extreme advance position of said sleeve providing a stop for said button to prevent said rod from being moved rearward a sufficient distance to discharge said radial cartridges.

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