J. GRAUMANN.

BOMB.

APPLICATION FILED DEC. 13, 1918. RENEWED OCT. 31, 1919.

1,326,258. Patented Dec. 30, 1919.

Fig. 1.

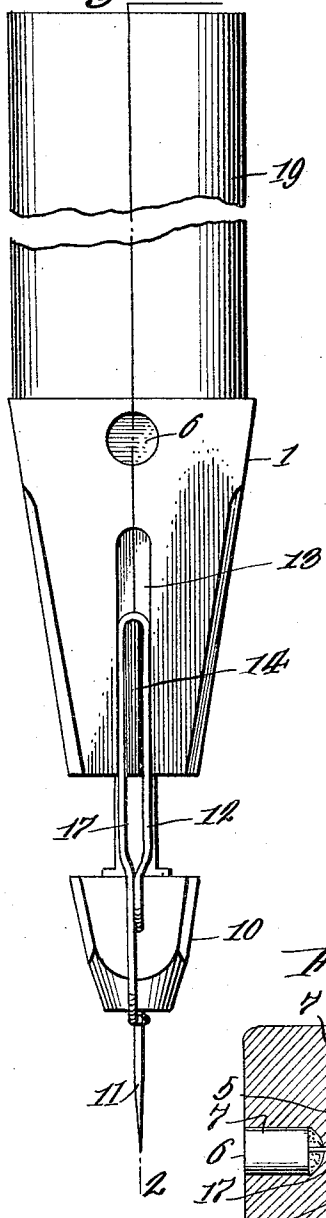


Fig. 2.

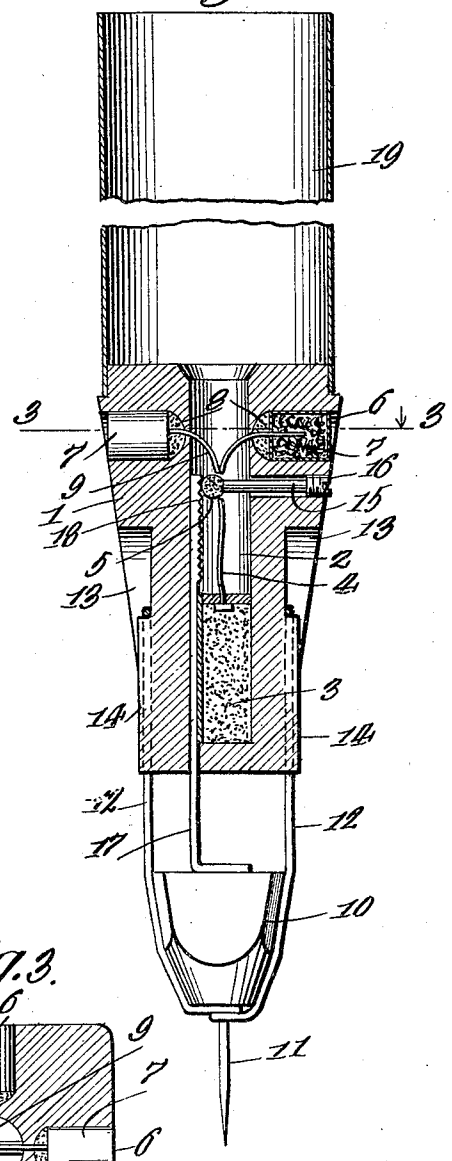
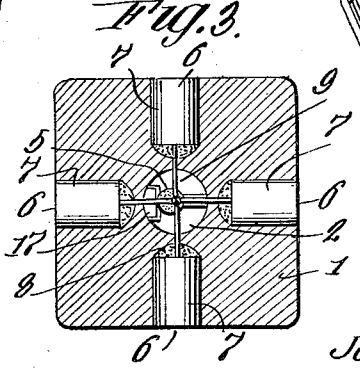


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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BOMB.

1,326,258. Specification of Letters Patent. **Patented Dec. 30, 1919.**

Application filed December 13, 1918, Serial No. 266,603. Renewed October 31, 1919. Serial No. 334,823.

To all whom it may concern:

Be it known that I, JOHN GRAUMANN, a citizen of the United States, residing at Granite, in the county of Greer and State of Oklahoma, have invented certain new and useful Improvements in Bombs, of which the following is a specification.

The primary intent of the present invention is the provision of a device for use in warfare for setting on fire enemy structures, stations, munition dumps and the like, the device being designed either to be dropped from air craft or to be projected from a gun and delivering inflammable charges in a way to insure the setting on fire of inflammable structures or material.

The invention provides a device of the character hereinbefore stated which in flight will maintain a given position and which when striking will become attached to the object struck and cause a conflagration by setting the same on fire by the nature of the device.

The drawing illustrates a preferred embodiment of the invention, however, it is to be understood that in adapting the same to meet different conditions, various changes in the form, proportion, and minor details of construction may be resorted to without departing from the nature of the invention as claimed hereinafter.

Referring to the accompanying drawing,

Figure 1 is a view in elevation of a bomb embodying the invention.

Fig. 2 is a vertical section on the line 2—2 of Fig. 1.

Fig. 3 is a horizontal section on the line 3—3 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawing by like reference characters.

The body of the bomb is indicated at 1 and is preferably made tapering and constructed of inflammable material, such as wood, celluloid or the like. A central opening 2 is formed in the body 1 and is closed at its forward end and is designed to receive a charge 3 of inflammable material. A fuse 4 leads from the charge 3 and terminate in close proximity to an igniter 5 which may be of any material. Radial openings 6 are formed in the sides of the body 1 near the large or rear end thereof and are adapted to receive cartridges 7 containing inflammable material and which are adapted to be projected by explosive charges 8 at the inner ends of the radial openings 6. Fuses 9 extend from the cartridges 7 and through the explosive charges 8 and terminate contiguous to the igniter 5 so as to be set on fire when the igniter 5 is set off. It is to be understood that the body 1 may be provided with any number of radial openings 6 and that the inflammable charges may consist of slow-buring powder, or be of any nature which will insure the setting on fire of any inflammable object with which the charges come in contact.

A head 10 is connected with the forward end of the body 1 in such a manner as to have a limited rearward movement and this head is provided with a pin 11 whereby the bomb may become attached to the object struck thereby. The head 10 may be retained in position by any suitable means and as shown wire loops 12 are disposed at opposite ends of the head 10 and embrace opposite sides of the body 1, the latter having recesses 13 in which the upper ends of the loops 12 are seated. The lower ends of the recesses 13 have projections 14 which enter the loops 12 and thereby retain the said loops and head 10 in position. The loops 12 being resilient are retained in position by frictional engagement and spring action.

The igniter comprises the element 5 which may consist of an igniting substance or composition of any nature. A stem 15 receives the igniter 5 and is held in a lateral opening formed in the body 1, said opening being closed by means of a plug 16 which may be adjusted to bring the element 5 in proper position to insure ignition. A rod or bar 17 is connected at one end with the head 10 so as to move therewith and extends into the longitudinal opening 2 and is roughened at its inner end as indicated at 18 to co-act with the element 5 and insure igniting of the fuses 4 and 9. The roughened surface 18 may be of steel and the element 5 of a nature to co-act with the roughened steel surface to produce a stream of sparks in a manner well understood in igniting devices so as to fire the fuses 4 and 9 or the element 5 may consist of a composition such as employed in the manufacture of matches and which is adapted to be lighted by the rubbing action of the part 18 when the head 10 is moved rearward.

A tube 19 is applied to the rear end of the head 1 and may consist of a cylinder of

card board or other light and cheap material. The rear end of the body 1 is reduced and receives the end of the tube 19. The tube 19 is of a length to insure the traveling of the bomb in a direct course and with the head 10 foremost.

The bomb may be dropped from air craft or may be projected by means of a gun and its construction is such that when it strikes an object it becomes attached thereto by means of the point 11 and the impact causes the head 10 to relatively move rearward with the result that the igniter is brought into operation and lights the fuses 4 and 9 whereby the cartridges 7 are projected and because of their inflammable nature set on fire the object with which they come in contact. After the cartridges 7 have been projected the explosive and inflammable charge 3 is ignited and causes an additional fire by reason of the inflammable nature of the charge 3 and the nature of the body 1.

The foregoing description and the drawings have reference to what may be considered the preferred, or approved, form of my invention. It is to be understood that I may make such changes in construction and arrangement and combination of parts, materials, dimensions, et cetera, as may prove expedient and fall within the scope of the appended claims.

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

1. A bomb, comprising a body containing a charge, a head movable with reference to the body, resilient elements connected with the head and embracing opposite sides of the body and means on the body coöperating with the resilient elements to retain the head in proper position and limit its movement.

2. A bomb, comprising a body provided with a charge and having recesses in opposite sides and projections in the recesses, a movable head and loop-shaped members connected with the head and embracing the recessed sides of the body and receiving the said projections.

3. A bomb, comprising a body having longitudinal and radial openings, charges in the openings, fuses leading from the charges and terminating within the central opening, an igniting element adjacent the ends of the several fuses, a movable head and a member movable with the head and adapted to coöperate with the igniting element to effect a lighting of the fuses.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN GRAUMANN.

Witnesses:
E. HESTER,
J. W. ADAIR.