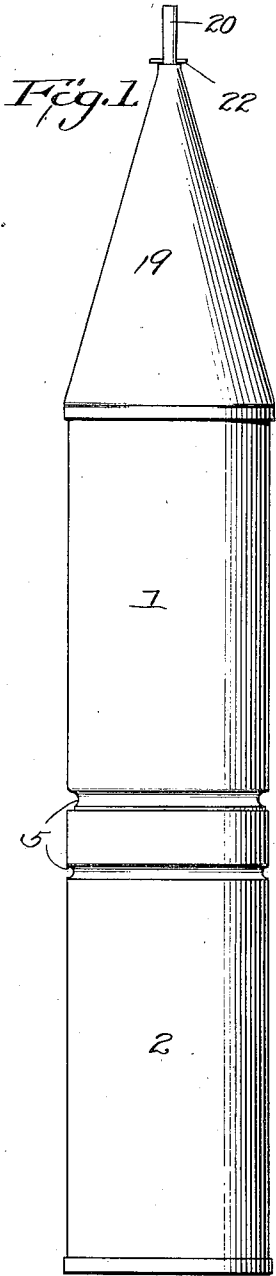
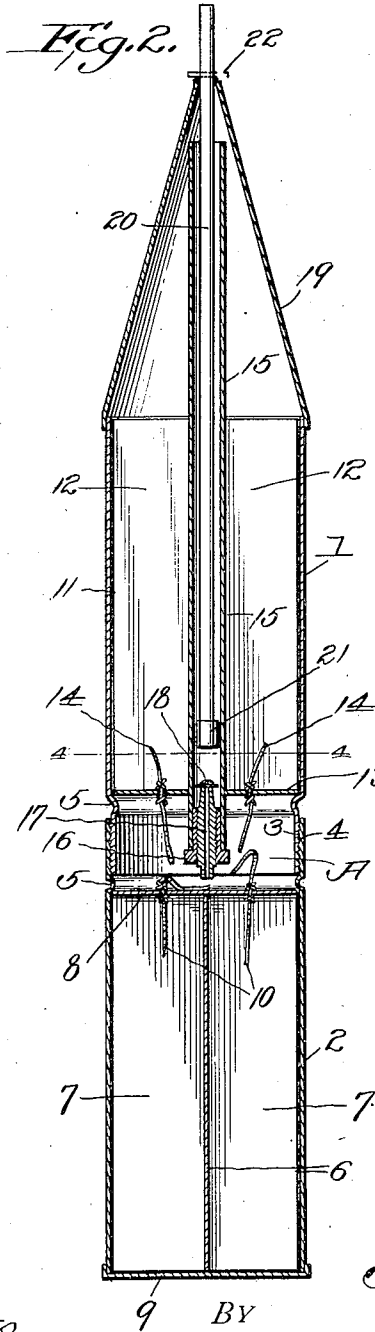
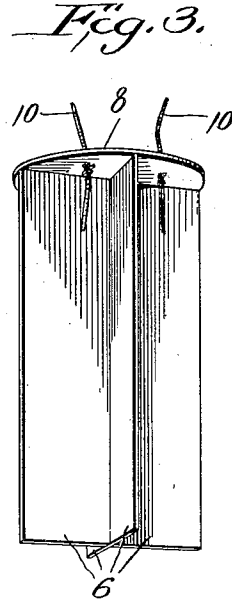
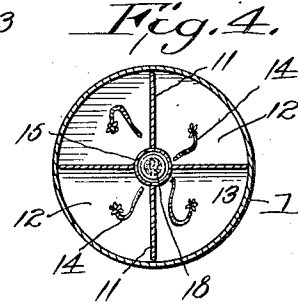


J. A. MARKER.
PROJECTILE.
APPLICATION FILED DEC. 5, 1912.

1,066,130.

Patented July 1, 1913.



WITNESSES:

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JAMES A. MARKER, OF LAMAR, MISSOURI.

PROJECTILE.

1,066,130.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed December 5, 1912. Serial No. 735,103.

To all whom it may concern:

Be it known that I, JAMES A. MARKER, citizen of the United States, residing at Lamar, in the county of Barton and State of Missouri, have invented certain new and useful Improvements in Projectiles, of which the following is a specification.

The present invention relates in general to the construction of projectiles of that type which are adapted to be discharged from a gun and which automatically explode upon striking some object.

The object of the invention is to provide a projectile of this character which is simple and compact in its construction, which is positive and reliable in its operation, and which is formed with a series of distinct chambers, each chamber being adapted to receive a separate explosive charge and the various explosive charges being simultaneously ignited from the center of the shell.

A further object of the invention is to provide an explosive projectile which can be handled with safety before being inserted in the gun, and which can be quickly assembled or taken apart.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a side elevation of a projectile constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of one set of partitions, and Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the present embodiment of the invention, the numerals 1 and 2 designate a pair of complementary sections which have the same diameter and are fitted together to provide the shell of the projectile. The inner end of the cylindrical section 1 is provided with a flange 3 which is threaded into a flange 4 at the inner end of the section 2, an annular rib 5 being

pressed inwardly from each of the sections at the base of the respective flange.

A set of intersecting partitions 6 are inserted in the cylindrical section 2 so as to sub-divide the same into a series of independent compartments 7. The inner ends of the partitions 6 are provided with a circular head 8 which engages the rib 5 of the section 2 to close the inner ends of the compartments, the outer ends of the compartments being closed by a cap 9 which is applied to the end of the shell. Each of these compartments 7 is designed to receive an explosive charge, and the circular head 8 is formed with openings receiving fuses 10 which lead from the various compartments 7 to a central compartment A at the middle of the shell. In a somewhat analogous manner the interior of the section 1 is subdivided by partitions 11 into a series of compartments 12, the inner ends of the compartments being closed by a head 13 which engages the inwardly pressed annular rib 5. A series of fuses 14 extend through the head 13 and lead from the various compartments 12 to the central chamber A. It will be observed that both sets of fuses 14 and 10 are knotted on opposite sides of the circular partitions to hold the fuses in position.

The partitions 11 radiate from a tube 15 which extends longitudinally through the section 1, the end of the tube passing through the circular head 13 and projecting into the chamber A. A tubular plug 16 is fitted in the inner end of the tube 15, and a nipple 17 is removably threaded in the tubular plug 16, the inner end of the nipple forming a seat upon which a cap or primer 18 is adapted to be placed. A conical head 19 which constitutes the forward end of the projectile is applied to the outer end of the section 1, and a plunger 20 which is slidably mounted within the tube 15 passes through the apex of the conical head. The inner end of the plunger is formed with a head 21 which frictionally engages the interior of the tube 15 and is adapted to be forced against the primer 18 to explode the same. The outer end of the plunger 20 is formed with a transverse opening adapted to receive a removable pin 22, the said pin constituting a safety device to prevent the plunger from being forced inwardly so as to explode the primer while the projectile is being handled. The various compartments 12 and 7 are each designed to receive an explosive charge,

and when the two sections 1 and 2 of the casing are detached or unscrewed, the nipple 17 can be readily removed to admit of placing the cap 18 in position. After the projectile has been properly assembled, the safety pin 22 prevents the plunger 20 from being forced inwardly so as to explode the primer. Immediately before placing the projectile in the gun, this safety pin 22 can be removed. After the projectile had been discharged from the gun, the end of the plunger 20 at the nose of the projectile would be the first to engage any object in the path thereof, and the plunger would thereby be forced inwardly so as to explode the primer 18, fire from the primer passing through the nipple into the chamber A so as to ignite the fuses 10 and 14. The explosive charges in the various compartments 7 and 12 would be ignited by these fuses so as to bring about a very destructive explosion.

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

1. In a projectile, the combination of a casing, partitions dividing the casing into a central compartment and also into a series of independent explosive containing compartments, fuses leading from the explosive containing compartments to the central compartment, a nipple formed with a seat adapted to contain a primer and having a passage leading from the said seat to the central compartment, and a plunger extending to the forward end of the projectile and constructed to explode the primer when the projectile strikes an object.

2. In a projectile, the combination of a casing, a pair of spaced transverse heads arranged within the casing and forming a central compartment, longitudinal partitions arranged within the casing on opposite sides of the heads and forming a series of explosive charge containing compartments, fuses extending through the circular heads and leading from the explosive containing compartments to the central compartment, a tube leading from the central compartment to the nose of the projectile, a nipple at the inner end of the nose, the said nipple being formed with a seat adapted to receive a primer and also with a passage leading from the said seat to the central compartment, and a plunger mounted within the tube and projecting beyond the forward end

thereof so as to explode the primer when the projectile strikes an object.

3. In a projectile, the combination of a pair of cylindrical sections having the inner ends thereof formed with telescoping flanges, a transverse head arranged within the inner end of each of the sections, the said heads coöperating with each other to provide a central compartment, longitudinal partitions arranged within the respective sections to form a series of charge containing compartments on each side of the central compartment, fuses extending through the transverse heads and leading from the various charge containing compartments to the central compartment, a tube leading from the central compartment to the forward end of the shell, a nipple applied to the inner end of the tube and formed with a seat adapted to receive a primer and also with a passage leading from the seat to the central compartment, and a plunger slidably mounted within the tube and projecting beyond the forward end thereof so as to explode the primer when the projectile strikes an object.

4. In a projectile, the combination of a casing, a pair of transverse partitions arranged within the casing and forming a central compartment, longitudinal partitions forming a series of charge receiving compartments in each end of the casing, fuses extending through the transverse partitions and leading from the various charge containing compartments to the central compartment, a tube leading from the central compartment to the forward end of the shell, a nipple applied to the inner end of the tube and formed with a seat adapted to receive a primer and also with a passage leading from the said seat to the central compartment, a plunger mounted within the tube and projecting beyond the nose of the projectile so as to be forced inwardly and explode the primer against the seat when the projectile strikes an object, and a transverse safety pin removably applied to the projecting end of the plunger to hold the same in an inoperative position.

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

JAMES A. MARKER.

Witnesses:

KATIE B. DE MOSS,
G. F. MARKILLIE.