

G. E. WALKER.
Shell for Ordnance.

No. 168,813.

Patented Oct. 11, 1875.

Fig. 1.

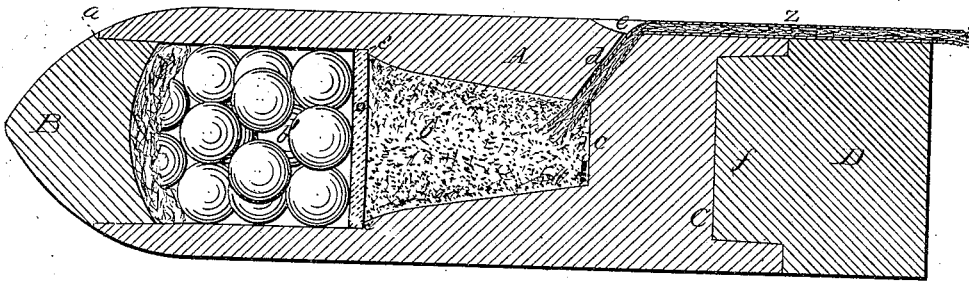
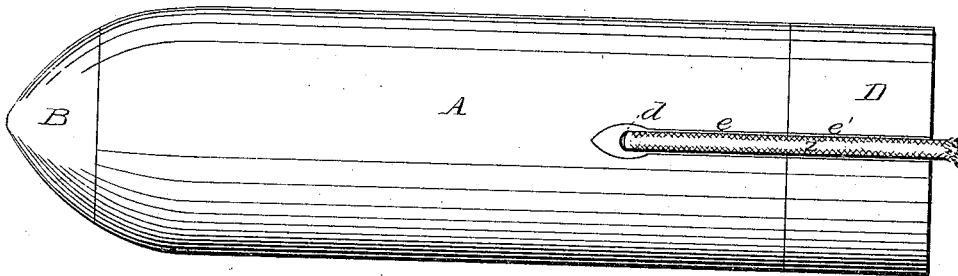


Fig. 2.



WITNESSES

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IMPROVEMENT IN SHELLS FOR ORDNANCE.

Specification forming part of Letters Patent No. 168,813, dated October 11, 1875; application filed July 24, 1875.

To all whom it may concern:

Be it known that I, GEORGE EDWIN WALKER, of Reynolds, in the county of Taylor and State of Georgia, have invented a new and valuable Improvement in Shooting-Shells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal central section of my shell, and Fig. 2 is a plan view thereof.

This invention has relation to projectiles for ordnance; and it consists in the construction and novel arrangement of a shell having a cylindrical body with a conical-bore recess, a sabot having a tenon, and fuse-groove entering the bore near its base, as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A designates the cylindrical body of the shell, somewhat tapering in front to the mouth *a* of the bore *b*, which is in the form of a conical frustum, the bottom *c* of the bore being solid. Through the wall of the body, near the bottom of the bore, is made the fuse-hole *d*, from the external opening of which to the end of the shell-wall in rear is formed a fuse-groove, *e*. *e'* is a shoulder at the outer end of the bore *b*, affording a firm support for the partition *o*, resting and supported firmly thereon. The partition *o* is removable, and separates the chambers containing the powder and ball. B designates the cap, pointed exteriorly and concave within, designed to close the mouth of the bore with a reasonably close fit to retain the shell-charge until the ignition of the powder. In the rear of the shell-body a recess, C, is formed for the reception of a tenon, *f*, of the wooden sabot D, or other extension of

light material, in the side of which is made a groove, *e'*, to correspond with the groove *e*. The shell is charged by introducing the powder into the bore, then a sufficient quantity of shot, over which is placed wadding, and the whole covered in by the cap or point. Before the introduction of the charge, the time-fuse *z* should be inserted through the opening *d*, its exterior end being laid in the fuse-groove *e e'* to the rear end of the shell, and confined in this position by any suitable means.

This shell is not designed to explode when discharged by the time-fuse in the air, but to shoot the shot contained within it out of the bore in front, scattering these missiles with increased velocity forward of the shell itself. The lightness of the rear end serves to keep the mouth of the bore to the front in the flight of the projectile, and when the shell begins to descend the front end will dip and the discharge will take place in the direction of the earth, more or less, according to the length of the time-fuse.

Should the shell become embedded in the earth point foremost before the ignition of its charge, then it will become an explosive shell by reason of the obstruction against the cap.

What I claim as new, and desire to secure by Letters Patent, is—

The cylindrical shell A, provided with the recess C, sabot D, having the tenon *f*, conical bore *b*, and fuse-grooves *e e'*, the latter entering the bore near its base, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE E. WALKER.

Witnesses:

J. T. MULLINS,
C. B. MARSHALL.