T. TAYLOR.

Shell-Fuse.

No. 47,231. Patented Apr. 11, 1865.

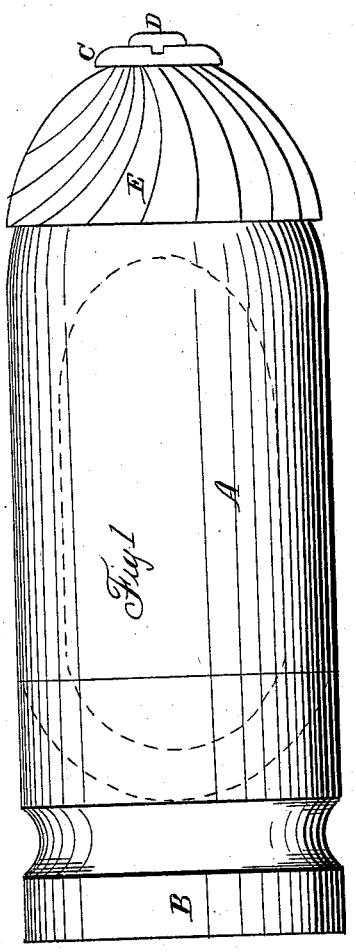

Fig 1

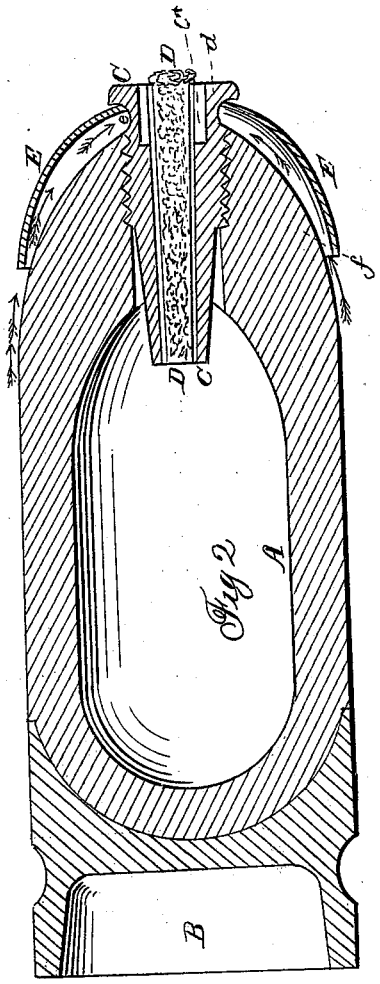

Fig 2

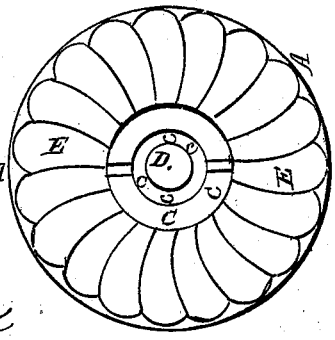

Fig 3

Witnesses
S. S. Fahnestock
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UNITED STATES PATENT OFFICE.

THOMAS TAYLOR, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN FUSE-HOODS FOR EXPLOSIVE SHELLS.

Specification forming part of Letters Patent No. **47,231**, dated April 11, 1865.

To all whom it may concern:

Be it known that I, THOMAS TAYLOR, of the city and county of Washington, in the District of Columbia, have invented a new and Improved Mode of Lighting Time-Fuses for Shells; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a more certain means of igniting the time-fuse in the front of the shell, which shall insure also a more certain explosion of the projectile.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the shell; B, its gas or windage cup; C, the fuse-plug containing the fuse D. E is a corrugated hood in front of the shell, between it and the flange of the fuse-plug C. C is an annular cavity in the front part of the plug, leaving a recess between it and the front end of fuse D, the object of which will be presently explained. *e* is an annular cavity or recess around the fuse-plug. Just in rear of its front flange, *d*, is an opening or openings leading from *e* to *c*.

The object of the base-cup B is well known to all having any experience in firing projectiles; but its purpose somewhat lessens the chance of the windage-flame reaching and igniting the time-fuse. The object therefore of the hood E is to catch and direct this flame upon the end of the fuse. It will be seen by the red arrows how the flame is brought in contact with the front end of the fuse. When the shell starts, the hood E may flatten a little, ride upon the front end of the shell, its top pressing more or less against the walls of the bore, and the flame referred to is directed underneath, the hood passing through the holes in front end of fuse-plug, igniting the front end of the time-fuse D, which I saturate with collodion. Repeated experiment has proved the efficiency of this flame-hood—its office in directing the flame to the fuse, which otherwise would be dissipated. The hood may be hemispherical, or the zone of a sphere. This would necessitate the grooving of the front end of the shell, or the insertion of tubes in the same. Grooves may be seen indicated by dotted lines at *f;* or these several devices—corrugated or plain cups, a plain or grooved shell, or one with tubes—may be used, the combination varied at pleasure, without departing from the nature of my invention. I think a corrugated hood and a grooved shell, or one with tubes, (which is the same,) will prove most efficient. In this arrangement the hood is always in place, held firmly between the front end of the shell and the flange of the fuse-plug, and cannot be displaced.

I am aware that a flame-hood has been placed entirely in front of the shell and its fuse. This is liable to great objection, on account of easy displacement in transportation, especially, if not in loading or firing. It therefore must necessitate being put in position at the time of use. The objection to this any one acquainted with artillery-practice must at once acknowledge.

Without departing from the nature of my invention, the flame-hood E may be permanently attached to the flange of the fuse-plug C, or it may be attached to the shell, being located between both.

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

The use of the flame-hood E, located between the front end of the shell and the front of the fuse, held securely in place by the flange of the plug C, the same constructed and operated substantially as described.

THOMAS TAYLOR.

Witnesses:
S. S. FAHNESTOCK,
JNO. H. JOHNSON.