

(No Model.)

W. T. CHAMBERLAIN.  
EXPLOSIVE SHELL.

No. 312,705.

Patented Feb. 24, 1885.

Fig. 1.

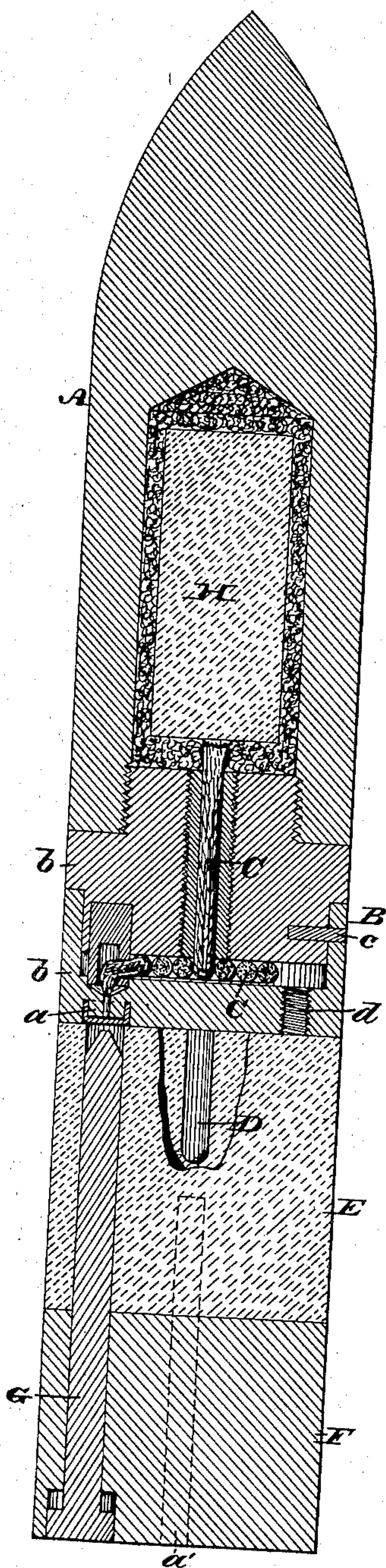


Fig. 2.

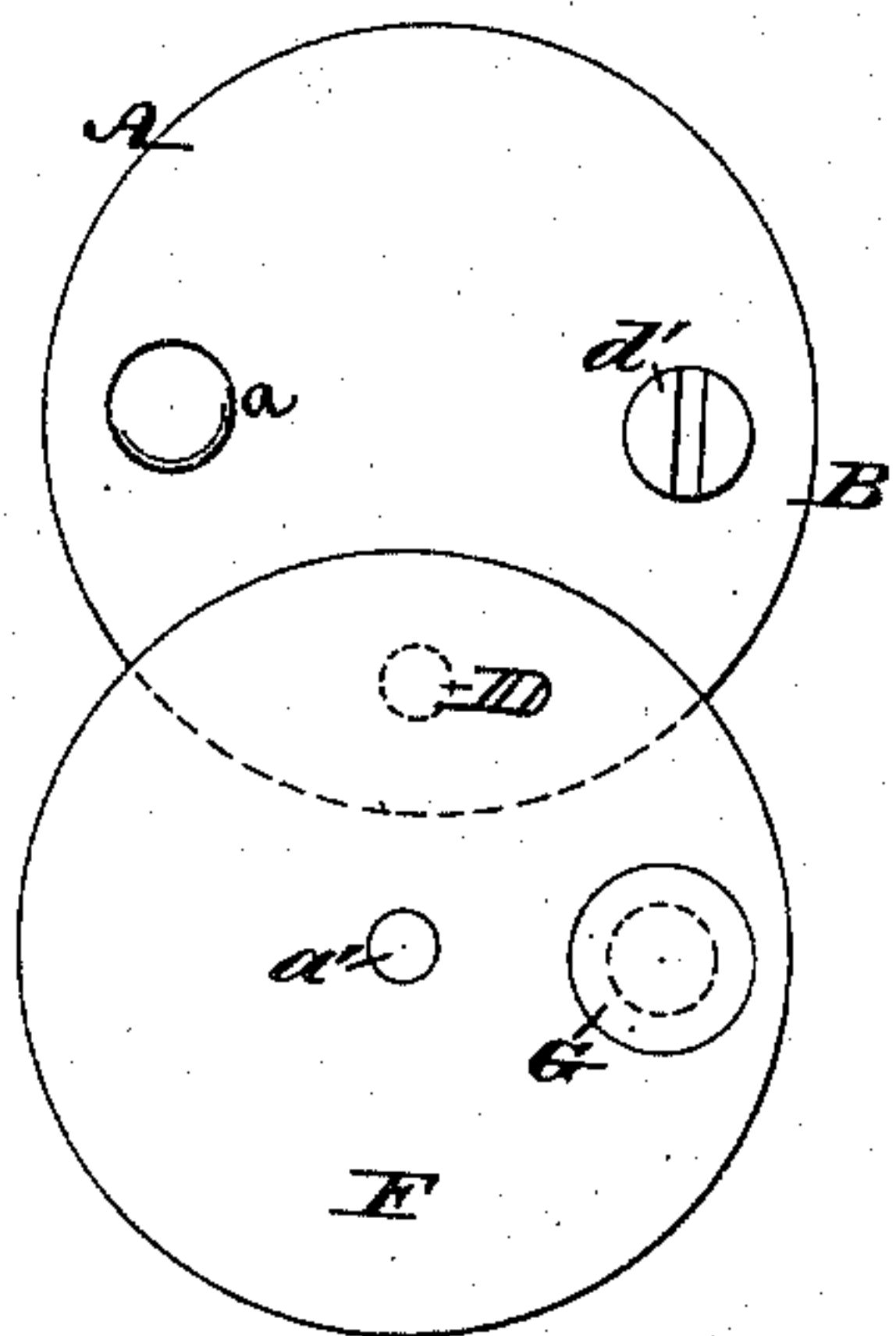
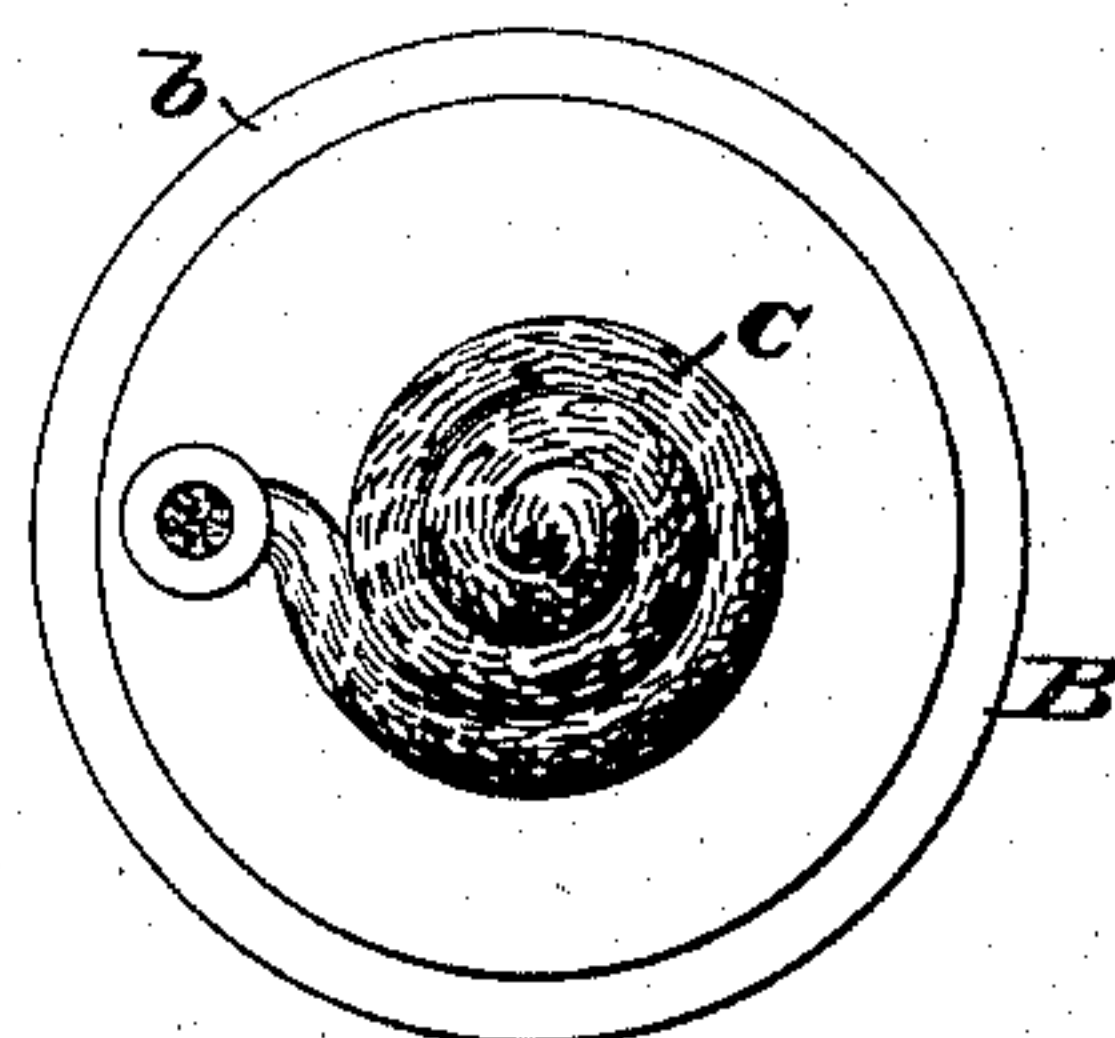


Fig. 3.



WITNESSES:

R. P. Grant,  
H. F. Kircher

INVENTOR:

William T. Chamberlain,  
BY John A. Diederichsen  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

WILLIAM T. CHAMBERLAIN, OF NORWICH, CONNECTICUT, ASSIGNOR OF TWO-THIRDS TO BENJAMIN M. PRINCE, OF SAME PLACE, AND WILLIAM CROSSLEY, OF RANDOLPH, MASSACHUSETTS.

## EXPLOSIVE SHELL.

SPECIFICATION forming part of Letters Patent No. 312,705, dated February 24, 1885.

Application filed May 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. CHAMBERLAIN, a citizen of the United States, residing at Norwich, in the county of New London, State of Connecticut, have invented a new and useful Improvement in Explosive Shells, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a longitudinal section of a shell embodying my invention. Fig. 2 is an end view of the base portion of the shell, the sabot or pad and end block being moved around, exposing the cap and the vent-screw. Fig. 3 is an end view of the base portion of the shell, showing the fuse-chamber, the closing section or cap thereof being removed.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a shell employing dynamite as an explosive, the construction and operation being hereinafter fully set forth.

Referring to the drawings, A represents the body of a shell, and B the base thereof, the latter being hollow and containing the fuse C, one end whereof passes through the base into the chamber of the shell, and the other is located adjacent to the cap-nipple *a*, so as to be ignited when the cap is struck. Projecting rearward from the base is a pin, D, which is located eccentric thereon and enters an opening in a sabot or pad, E, of felt or other suitable soft fabric or material, whereby said pad is retained in position on the base.

F represents a block or plug which carries a firing-pin, G, the same being passed through the pad E and adapted to strike the cap on the nipple *a*. Within the chamber of the shell is a block, H, of dynamite, which is incased in cotton or other suitable non-explosive material, forming a cushion around the same for preventing premature discharge of the dynamite by concussion. It will be seen that when the shell is discharged from a fire-arm the pin D causes the cap to ignite the fuse, and when the shell reaches its destination the fire of the fuse reaches the block H, causing the explosion of the same, and consequent bursting of the shell. The base B is made

in sections *b b*, which may be separated in order to provide access to the fuse-chamber in the base for timing the fuse, &c. When the sections are fitted together, they are held closed by means of pins *c*, which are passed through the flange of one section into the neck of the other section. In the base B is an opening, *d*, forming a vent which is closed by a screw or cap, *d'*, the latter being removed prior to the insertion of the shell in the fire-arm, so that the vent is uncovered for the burning fuse. Owing to the eccentric location of the pin D the pad E may be rotated thereon, so as to expose the cap-nipple and vent in the base for applying a cap or fulminate to said nipple, and removing the screw or plug from said vent, it being noticed that the pad may be readily restored, so as to cover the cap and vent, and said pad and the block form continuations of the base of the shell. The block may be prevented from rotating on the pin D by means of another pin, *a'*, passed centrally through the block into the pad. When the shell is discharged, the pad E, owing to its flexible or elastic nature, acts as a cushion for preventing the shock from being injuriously communicated to the dynamite-chamber and causing action of the firing-pin unfailingly against the cap or fulminate.

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

1. The body of a shell containing an explosive, and a hollow or perforated base connected with said body having a fuse-chamber, said base being formed in sections, one section carrying a nipple and provided with a flange whereby by means of the fastening-pin *c* the sections are connected, substantially as and for the purpose set forth.

2. A shell having a block of dynamite within its body, the same being incased in non-explosive material, a base connected with said body having a fuse-chamber, a fuse-opening, and a nipple, and a plug connected with the base having a firing-pin, substantially as and for the purpose set forth.

3. A shell having a nipple on its base, in combination with a sabot connected there-



2  
with by the eccentrically-arranged pin D, and the pin  $\alpha'$ , said sabot having a firing-pin, substantially as and for the purpose set forth.

4. A shell having in its base a fuse-chamber, a nipple, and vent, in combination with a sabot covering said nipple and vent, and connected with the base by an eccentrically-arranged pin, substantially as and for the purpose set forth.

10 5. An explosive shell having a fuse-cham-

ber and a cap or fulminate-holder, a sabot or pad of flexible material connected with the base of the shell, and a block carrying the firing-pin secured to said pad, substantially as and for the purpose set forth.

WILLIAM T. CHAMBERLAIN.

Witnesses:

JOHN A. WIEDERSHEIM,  
A. P. GRANT.