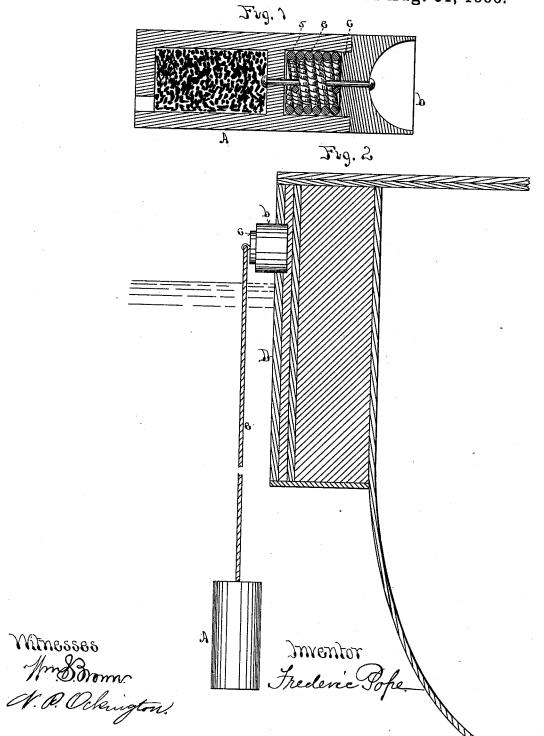
## F. POPE.

SHELL.

No. 348,340.

Patented Aug. 31, 1886.



## UNITED STATES PATENT OFFICE.

## FREDERIC POPE, OF BOSTON, MASSACHUSETTS.

## SHELL.

SPECIFICATION forming part of Letters Patent No. 348,340, dated August 31, 1886.

Application filed February 23, 1886. Serial No. 192,850. (No model.)

To all whom it may concern:

Be it known that I, FREDERIC POPE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Explosive Shells for Ordnance, of which the following is a specification.

My invention relates to explosive shells for ordnance; and it consists in certain improvements therein, substantially as hereinafter described and claimed.

In the drawings, Figure 1 is a longitudinal section through an explosive shell, constructed in accordance with my invention. Fig. 2 is a side elevation of the same, representing the position of the parts after striking the side of a vessel.

A represents the body or main portion of the shell, which is intended to contain the explosive compound which is to be ignited by a 20 time-fuse, percussion device, or in any other suitable manner.

b is the head, which is provided with a projecting portion, c, which fits into a recess, 5, in the body, A, which is made of sufficient size to contain a piece, e, of wire, wire cord, or chain, which may be coiled or otherwise disposed within the recess, and serves to connect the head b with the body A. The front of the

head b is cup-shaped, so as to form a punch; but the shape of the head may be varied as 30 desired, provided it is so formed as to serve as such punch.

When the shell strikes the side of an ironclad vessel, D, the head b penetrates the plating and remains fixed therein, and the rebound 35 of the shell causes the main portion or body A to become detached and fall down below the line of the plating of the vessel as far as permitted by the length of the cord or wire e, where it remains suspended against the unprotected side of the vessel until it explodes, whereby the destruction of the vessel is easily accomplished.

What I claim as new and of my invention

The combination of the body A, having a chamber adapted to receive the explosive compound, the detachable punch-shaped head b, the intermediate chamber 5, and the cord connecting said head and body part, substantially 50 as described.

FREDERIC POPE.

Witnesses:

N. P. OCKINGTON, DAVID HALL RICE.