

(No Model.)

C. PILGRIM
TORPEDO.

No. 323,071.

Patented July 28, 1885.

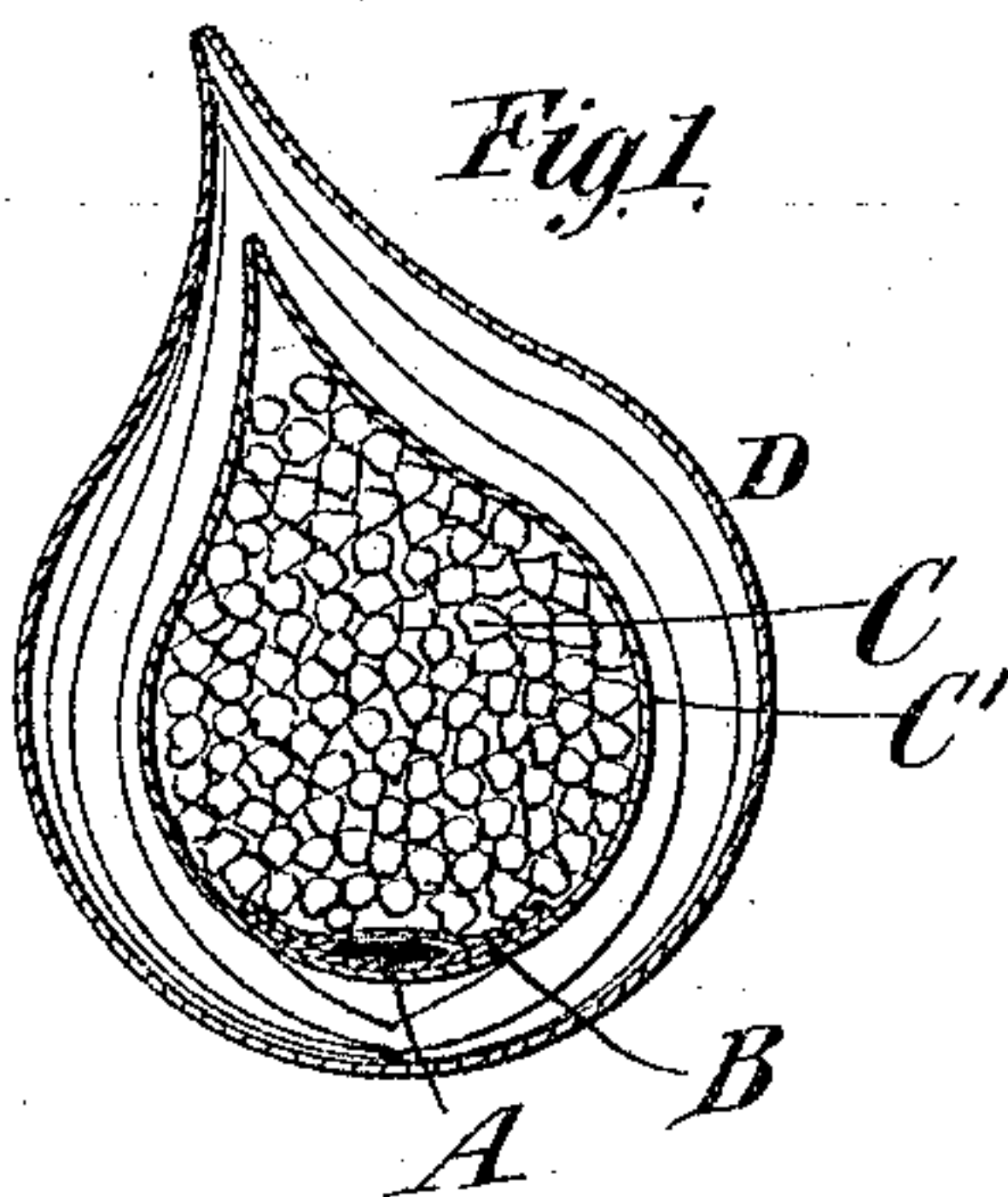
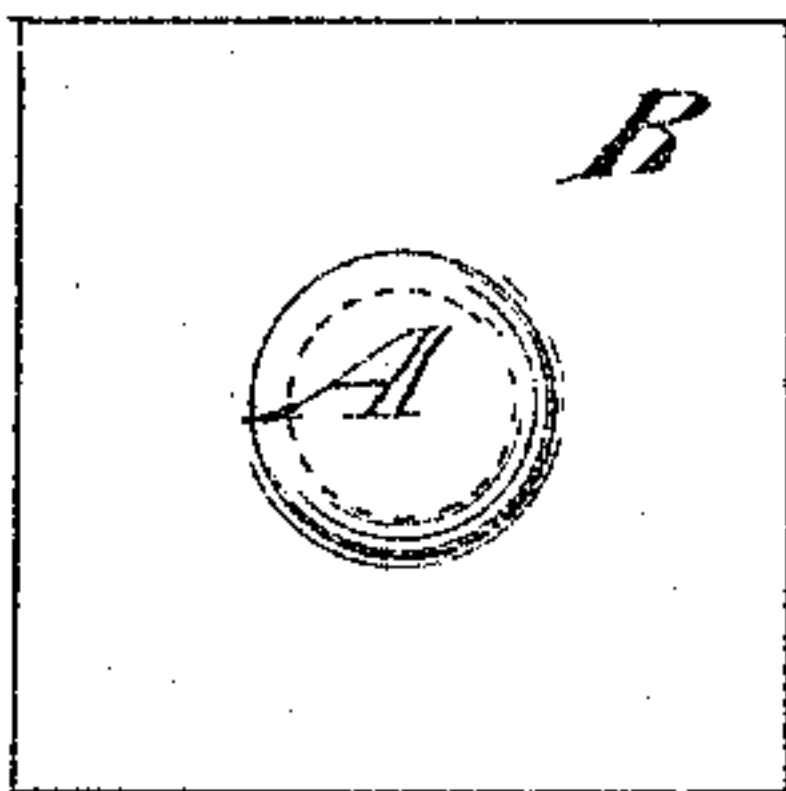


Fig 2.



Fig 3.



Witnesses:

Matthew Pollock
Edw. Haynes

Inventor:

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by his attys.
Brown & Hall

UNITED STATES PATENT OFFICE.

CONRAD PILGRIM, OF EAST NEW YORK, N. Y.

TORPEDO.

SPECIFICATION forming part of Letters Patent No. 323,071, dated July 28, 1885.

Application filed May 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, CONRAD PILGRIM, of East New York, in the county of Kings and State of New York, have invented a new and useful Improvement in Torpedoes, of which the following is a specification.

My invention relates to those torpedoes in which the fulminate is inclosed in a sack or wrapper separate from the sand or gravel filling.

The invention consists in the combination, in a torpedo, of the following elements, namely: a fulminate pellet, a water-proof wrapper inclosing the fulminate pellet, a sand or gravel filling, and an outer envelope or wrappers inclosing both the filling and the water-proof wrapper with its contained fulminate.

The water-proof wrapper for the fulminate may be of woven fabric or paper, and, being water-proof, it protects the fulminate against becoming impaired by moisture, and enables it to be used in a new torpedo or otherwise exploded in case the outer wrapper becomes broken.

In the accompanying drawings, Figure 1 is a sectional view of a torpedo embodying my invention. Fig. 2 is a sectional view of the fulminate-wrapper and fulminate, and Fig. 3 is a plan of the inner wrapper and contained fulminate.

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

In making torpedoes I prefer to inclose the fulminate in woven fabric, which is stronger and tougher than paper; but paper of any suitable kind may be used in lieu of cloth. The inner wrapper, which holds the fulminate separate from the sand or gravel filling, whether it be of paper or of woven fabric, will be rendered water-proof.

A designates the fulminate. B designates the wrapper which contains it. C designates the sand or gravel which forms the filling of the torpedo; C', an inner wrapper; and D designates the outer wrapper, which incloses the whole.

The wrapper B, for the fulminate, consists of two pieces of fabric or material cemented or stuck together, so as to form a closed wrapper and rendered water-proof. The fulminate may be inclosed in a wrapper of mate-

rial which is not water-proof, and the wrapper, with its contained fulminate, then dipped into a bath of paraffine or other water-proof substitute; or I may take two sheets or pieces of paper or woven fabric, which are thoroughly saturated with water-proof substance, and, after depositing the gobs or drops of fulminate at proper distances apart on one sheet or piece, lay the other sheet or piece thereonto, and cement or secure the two sheets or pieces together by adhesive substance, the sheets or pieces being subsequently divided between the drops of fulminate. The water-proof wrapper B, with its contained fulminate A, is then inclosed with the sand or gravel C in the inner wrapper, C', and around all is placed the outer wrapper, D, which is secured by twisting and adhesive substance. The outer wrapper, D, may be of material which is saturated with paraffine or other water-proof substance; or the torpedo may have water-proof substance applied to its exterior after it is in other respects completed. The inner water-proof wrapper protects the fulminate, whether the outer wrapper be water-proof or not, and even if the outer wrapper should break the fulminate will be protected from moisture by its individual water-proof wrapper, and can be put in a new outer wrapper with fresh gravel, or exploded in any other way.

In my Letters Patent No. 291,853, dated January 8, 1884, I have shown and described a torpedo in which the fulminate and sand or gravel filling are together inclosed in a water-proof wrapper. In that patent the gob or drop of fulminate is placed on a small piece of linen or other fabric, and this, together with the gravel or sand, is inclosed in a wrapper, the fulminate not being separate from the filling, but in contact therewith.

The torpedo which forms the subject of my present invention is distinguished from that shown in my former patent in that the fulminate is entirely inclosed in a water-proof wrapper separate from the filling. This separate water-proof wrapper for the fulminate is desirable, because it protects the fulminate from moisture if all the other wrappers of the torpedo break, and can be put in a new outer wrapper with fresh gravel, or exploded in any other way.

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

In a torpedo, the combination of the following elements, namely: a fulminate pellet, a
5 wrapper composed of water-proof material in which the pellet is separately inclosed, a sand or gravel filling, and an outer envelope or wrappers inclosing both the filling and the

water-proof wrapper with its contained fulminate, substantially as and for the purpose to herein described.

CONRAD PILGRIM.

Witnesses:

FREDK. HAYNES,
EMIL SCHWARTZ.