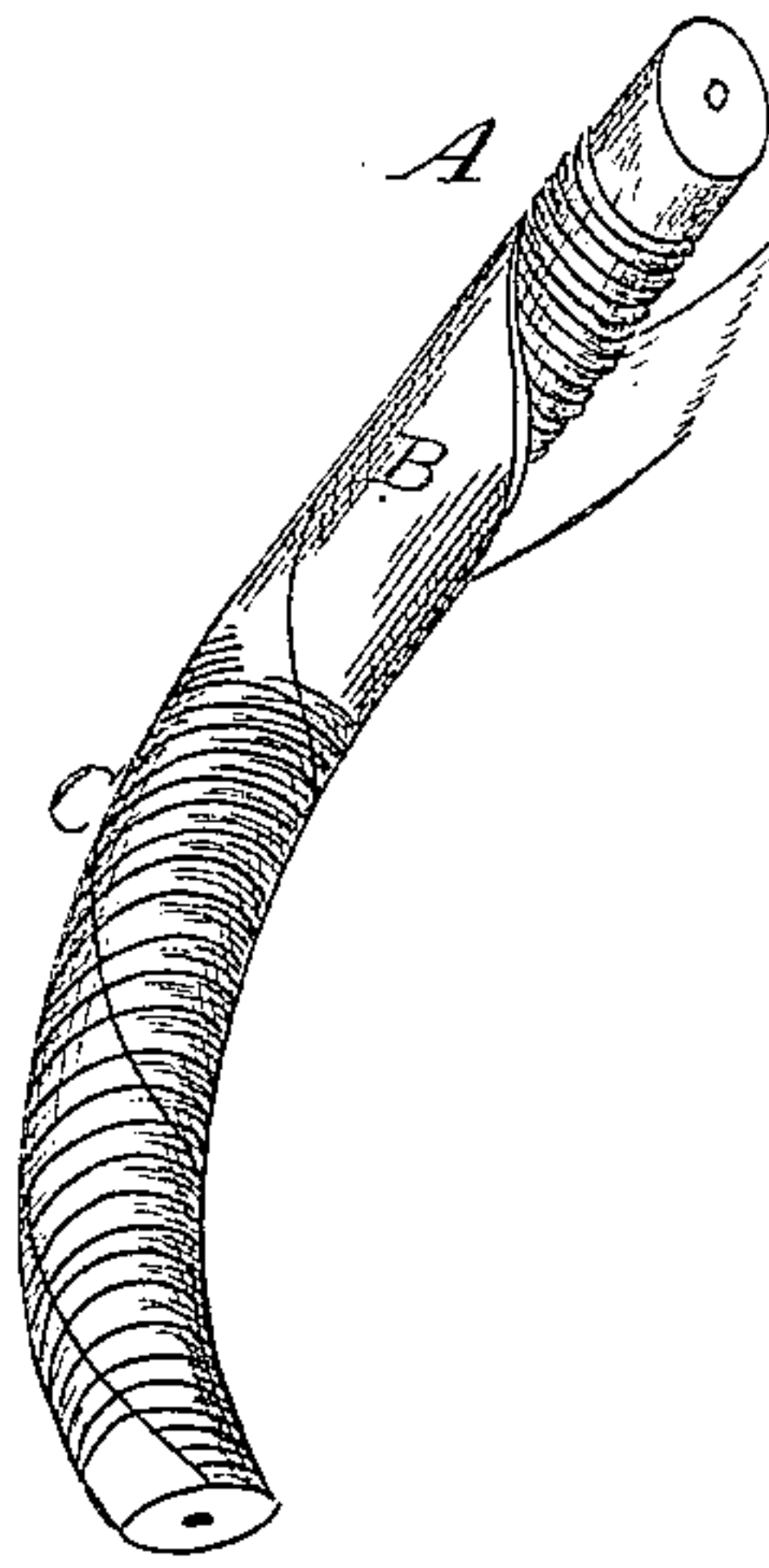


P. BACON.  
Blasting Fuse.

No. 12,810.

Patented May 8, 1855.



# UNITED STATES PATENT OFFICE.

PHILIP BACON, OF SIMSBURY, CONNECTICUT.

## IMPROVED TAPE-FUSE.

Specification forming part of Letters Patent No. 12,810, dated May 8, 1855.

*To all whom it may concern:*

Be it known that I, PHILIP BACON, of Simsbury, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Fuse for Blasting and other Exploding Operations; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, which represents, on an enlarged scale, a short piece of my improved fuse, partly unwound to show its construction.

My improved fuse is of the kind commonly known as "tape-fuse," and generally used for blasting and exploding under water or in other places where a water-proof fuse is required.

Tape-fuse as usually constructed consists of the common fuse having tape or strips of some woven fabric covered with pitch, tar, or other water-proof substance wound round it to form a water-proof covering. In cool weather the water-proof substance becomes hard and brittle, and in coiling, uncoiling, or otherwise bending the fuse, the tape becomes loose in parts and fails to give proper protection.

In order to prevent the cracking off or loosening of the tape, my invention consists in winding round the fuse after it has received the tape an external covering or partial covering of thread or roving, by which means not only that desirable result is obtained, but the manufacture of the fuse may be cheapened and simplified, as a single winding of tape is sufficient, and there is no necessity for previously coating the tape with the water-proof material; whereas in the common tape-fuse two coverings of tape are employed, both be-

ing previously run through or covered with the water-proof material.

In the accompanying drawing, A represents a part of the fuse uncovered by the tape.

B represents the tape covering, and C the external covering of thread, which forms the subject of my invention. This is made in the following manner: The fuse, in the state in which it appears at A, which resembles the common fuse for ordinary use, is run through a melted composition of pitch and coal-tar, such as is commonly used for such purposes. Then the tape B in a clean state is wound round it, and afterward the external covering C is wound around the tape. This covering may be wound in one or more threads; but, for convenience, I wind four or five threads at a time in the same way as the winding of the common fuse shown at A, the threads being close or nearly close together. This covering C is put on in a clean state, but after it is applied the fuse is run through the melted composition to give it an external water-proof covering.

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

The application, substantially as described, to tape-fuse of an external winding of thread, whereby the loosening or cracking off of the tape and waterproofing substance is effectually prevented, and the manufacture of the fuse cheapened and simplified, as herein set forth.

PHILIP BACON.

Witnesses:

CHAS. R. CHAPMAN,  
R. G. DRAKE.