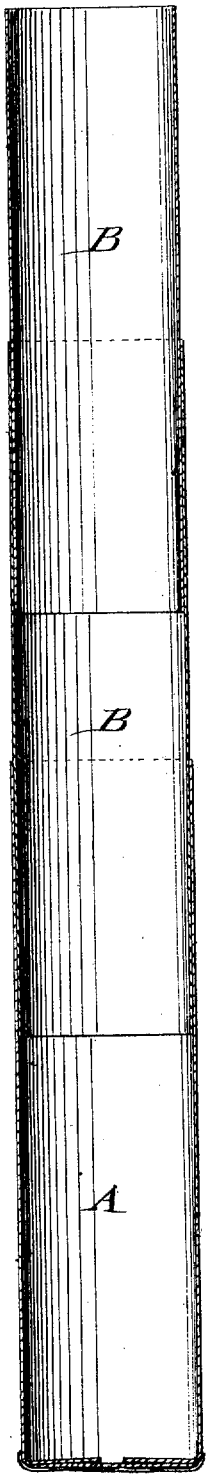
P. A. OLIVER.

Cartridge-Case for Blasting.

No. 167,465. Patented Sept. 7, 1875.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

PAUL A. OLIVER, OF WILKESBARRE, PENNSYLVANIA.

IMPROVEMENT IN CARTRIDGE-CASES FOR BLASTING.

Specification forming part of Letters Patent No. **167,465**, dated September 7, 1875; application filed August 21, 1875.

To all whom it may concern:

Be it known that I, PAUL A. OLIVER, of Wilkesbarre, Luzerne county, Pennsylvania, have invented a new and Improved Cartridge-Shell, of which the following is a specification:

The accompanying drawing represents a vertical transverse section of my improved telescopic cartridge-shell.

The object of this invention is to furnish a cartridge-shell for blasting purposes that may be lengthened or shortened as required for the bore-holes, so as to make the same more economical and handy for the miner without requiring the carrying of a number of cartridges of various lengths into the mine.

The invention consists of a cartridge-shell or tube provided with one or more tubular pieces or sections that telescope therein, for adjustment to the requisite length.

In the drawing, A represents the main cartridge-shell, which is closed at the lower or butt end in the customary manner, and dipped into asphalt, varnish, or other water-proof covering, to protect the ends thoroughly against moisture. One or more tubular pieces or sections B are fitted into the open end of the cartridge-shell, and arranged so as to telescope therein to any required length of bore-hole. The shell-sections are made to slide easily one into the other by being soaped at the ends before insertion, and also on the outside after insertion.

The soap is in universal use among miners, and serves as a sort of paste to make the ends fit closely and water-tight together at the joint.

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

A telescopic cartridge-shell for blasting purposes, made of a main shell, with one or more tubular pieces or sections jointed thereto, to adjust the shell to any required length, substantially as specified.

PAUL A. OLIVER.

Witnesses:

F. M. SHOEMAKER,

SAML. R. READING.