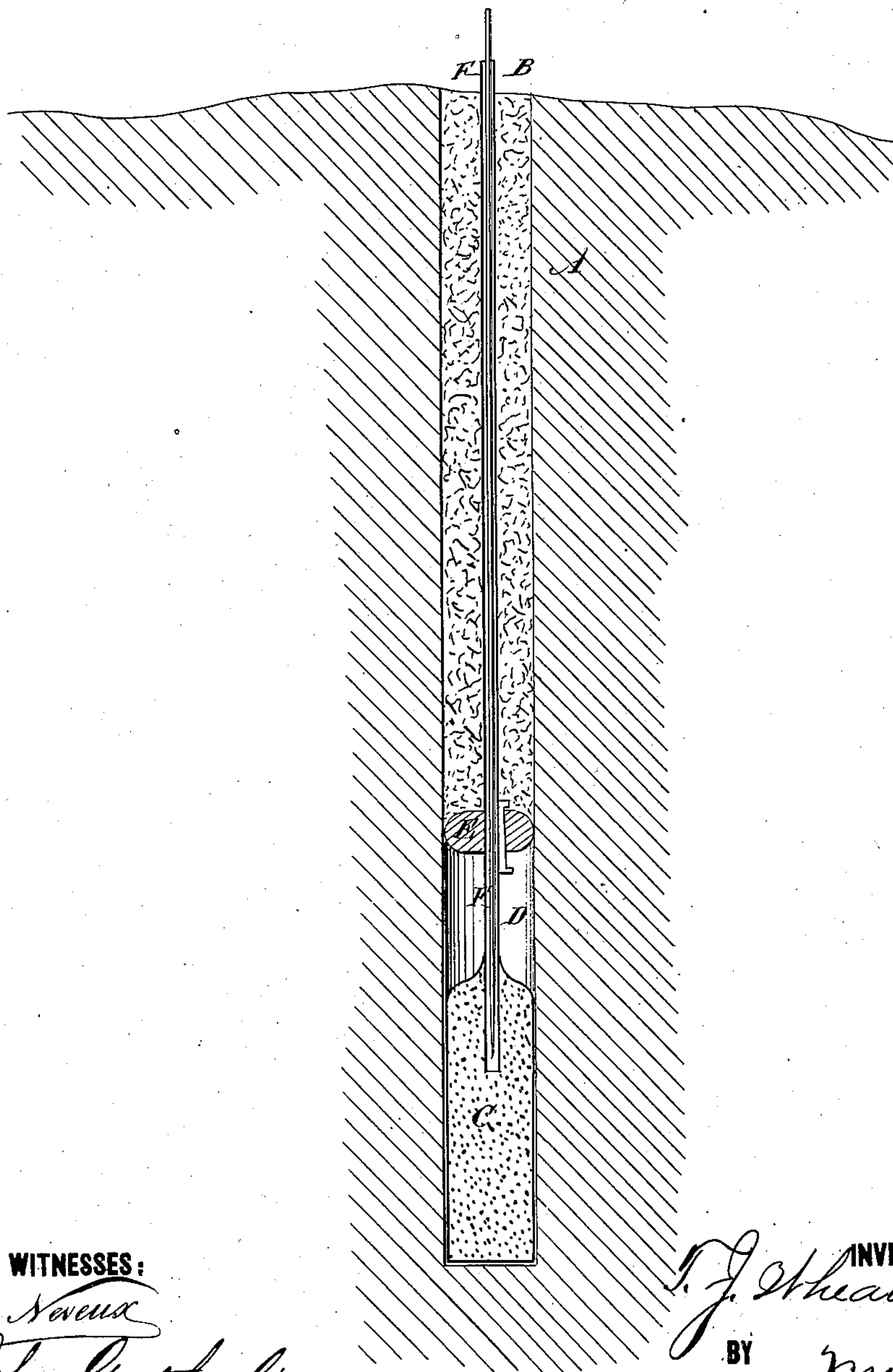


T. J. WHEATLEY.
Blasting Rocks.

No. 203,097.

Patented April 30, 1878.



WITNESSES:

C. Novak
John Goethals

INVENTOR:

T. J. Wheatley

BY

Munroe

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS J. WHEATLEY, OF WILKESBARRE, PENNSYLVANIA.

IMPROVEMENT IN BLASTING ROCKS.

Specification forming part of Letters Patent No. **203,097**, dated April 30, 1878; application filed June 12, 1876.

To all whom it may concern:

Be it known that I, THOMAS J. WHEATLEY, of Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Blasting Rocks, of which the following is a specification:

My improvement in blasting consists of having an unoccupied space between the top of the powder or other explosive material and the lower end of the tamping, which enables the work to be done with much less of the explosive material, and the flash of the explosion extinguishes before the oxygen of the air can combine with it, so that it cannot ignite the gases set free from the fissures and leaders of coal-mines by the explosion, thus preventing the burning of the mines, and in coal-mining it does not, owing to the more elastic nature of the force, break the coal so finely as when the space is not employed.

The drawing is a section of a rock or coal lead, showing a charge set according to my invention.

A is the rock or coal bed, in which the hole B for the charge is drilled in the usual or any approved way. C is the charge of powder or other explosive material in the bottom of the hole; D, the unoccupied space above, and E the tamping, the latter being located as far

above the powder as the length of the vacant space between the powder and the tamping is required to be.

For stopping the tamping at the required point above the charge, a button or wad, E, of any kind may be driven in sufficiently tight to hold against going too far by friction against the sides of the hole, and the tamping will be packed lightly at the beginning, so as not to drive the wad. Its own pressure against the sides of the hole will, after a certain quantity is packed in, be sufficient to sustain the heavy packing afterward necessary. The button E may be fixed on the tube F by which the fuse is inserted.

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

The method herein described of charging a mine or blast, which consists in confining the charge or cartridge at a little distance from the tamping or plug, and leaving an air-space between the powder and tamping, all substantially as set forth.

THOMAS J. WHEATLEY.

In presence of—

GEO. R. WRIGHT,
RICHARD B. REILEY.