

F. X. LAVALLE.
 Improvement in Device for Charging Drill-Holes.
 No. 133,040. Patented Nov. 12, 1872.

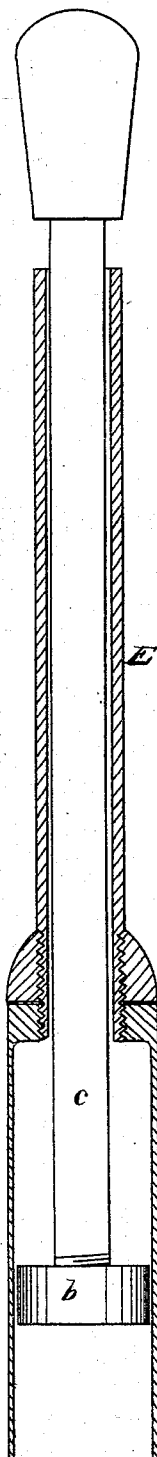


Fig. 1.

Witnesses

J. L. Doane
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per Dewey & Atty

UNITED STATES PATENT OFFICE.

FRANCIS X. LAVALLEE, OF AUBURN, CALIFORNIA.

IMPROVEMENT IN DEVICES FOR CHARGING DRILL-HOLES.

Specification forming part of Letters Patent No. 133,040, dated November 12, 1872.

To all whom it may concern:

Be it known that I, FRANCIS X. LAVALLEE, of Auburn, county of Placer, State of California, have invented a Device for Charging Drill-Holes with Giant or other Powder; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to a novel instrument for charging the holes which are made by a drill for blasting purposes with giant or other powder for the purpose of compacting it preparatory to exploding the blast, and is especially convenient where holes are drilled horizontally or at any angle of elevation.

In order to explain my invention so that others will be able to understand its construction and operation, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a sectional view of my device.

A represents a metal tube or charger, which is intended to contain the required amount of powder to charge a hole. A piston, *b*, moves in this cylinder, and has a rod, *c*, extending through the upper end of the cylinder, and through a tube, *E*, which is screwed upon its upper end so as to extend to the required distance from the charger to permit it to be inserted in the drill-hole while the operator retains his hold upon the tube.

To use this charger the desired amount of powder is placed in the cylinder *A*, the piston being withdrawn by means of the handle as far as possible. The cylinder is then inserted in the hole, which has previously been drilled, and pushed down to the bottom. The piston is then forced down as the cylinder is withdrawn by means of tube *E*, so as to force the powder out of it.

By this means I am enabled to greatly facilitate the operation of blasting, as the powder can be placed in the hole without trouble; whereas, as at present used, it is often necessary to compact it in water, which fills the bottom of the hole, and the powder is consequently stirred into a pasty mass, so that it will not do full execution.

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

The instrument for charging drill-holes with giant or other powder, consisting of the cylinder *A*, tube *E*, piston *b*, and piston-rod *c*, all combined and arranged for operation in the manner described, so that I am enabled to force the powder out of the cylinder *A* when it reaches the bottom of the drill-hole.

In witness whereof I hereunto set my hand and seal.

FRANCIS X. LAVALLEE. [L. s.]

Witnesses:

WM. G. GREENE,
A. D. BROWN.