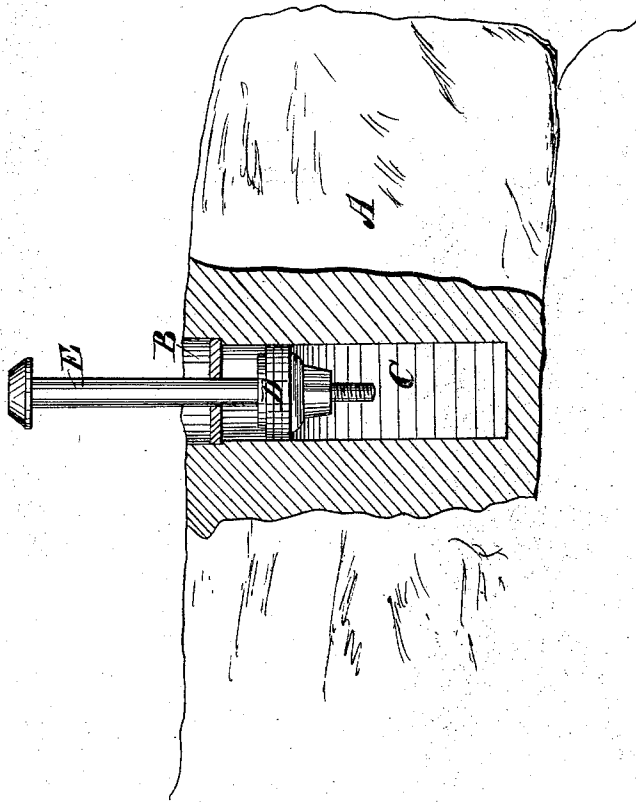


J. ROBB.

MODE OF SPLITTING ROCK.

No. 99,595.

Patented Feb. 8, 1870.



Witnesses:  
Forlanger  
Jno. H. Brooks

Inventor:  
J. Robb.

PER Munn & Co  
Atty's

# United States Patent Office.

JOHN ROBB, OF NEW YORK, N. Y.

*Letters Patent No. 99,595, dated February 8, 1870.*

## IMPROVED MODE OF SPLITTING ROCK.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, JOHN ROBB, of New York city, in the county of New York, and State of New York, have invented a new and useful Improvement in Splitting-Rock; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improved mode of splitting or separating rock in quarrying, whereby it is designed to accomplish the same in a less dangerous and more economical manner than by the common mode of blasting with powder.

The invention consists in filling or nearly filling the holes, drilled in the same way as for blasting, with water or other liquids, and then inserting plungers fitted to work as tightly as possible above the water, and subjecting the said plungers to the action of great weights, hammers, or other devices, let fall upon them, or otherwise imparting great concussive force, which is, through the medium of the water, expended upon the side walls of the holes, in the direction best calculated for separating the rocks.

The drawing represents a section through a rock, drilled and prepared with water, and a plunger for operation, according to my improvement.

A represents the rock; B, the hole drilled therein; and D, the plunger or piston.

The hole B is nearly filled with water, as designated by letter C.

These pistons may be operated singly or collectively in rows, as preferred or required in the nature of the work in hand, the hammers being arranged to strike simultaneously, when used collectively.

This mode is preferable to blasting, not only because it is less dangerous, but also because all the force is expended in the required direction, whereas in blasting, a large measure is lost by the giving away of the packing as soon as it is freed by the starting of the rock.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The herein-described improved mode of splitting or separating rocks, by means of concussive force imparted to water or other liquids placed in the holes made in the rock, through the medium of plunger D, above the water, fitting the holes, and arranged to receive the said force from a hammer, drop, or other device, all substantially as specified.

The above specification of my invention, signed by me, this 29th day of July, 1869.

JOHN ROBB.

Witnesses:

GEO. W. MABEE,  
ALFRED LURCOTT.