

C. F. MEEK.
METHOD OF SAWING ROCK.
APPLICATION FILED APR. 18, 1910.

1,050,972.

Patented Jan. 21, 1913.

Fig. 1.

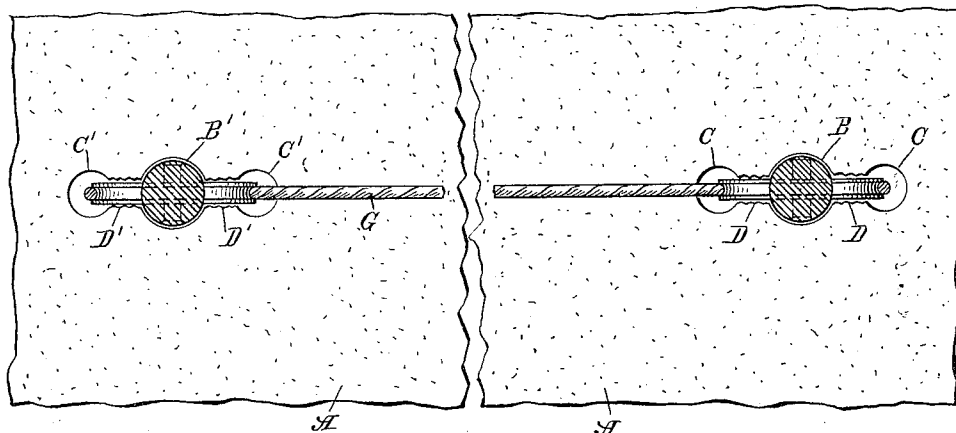
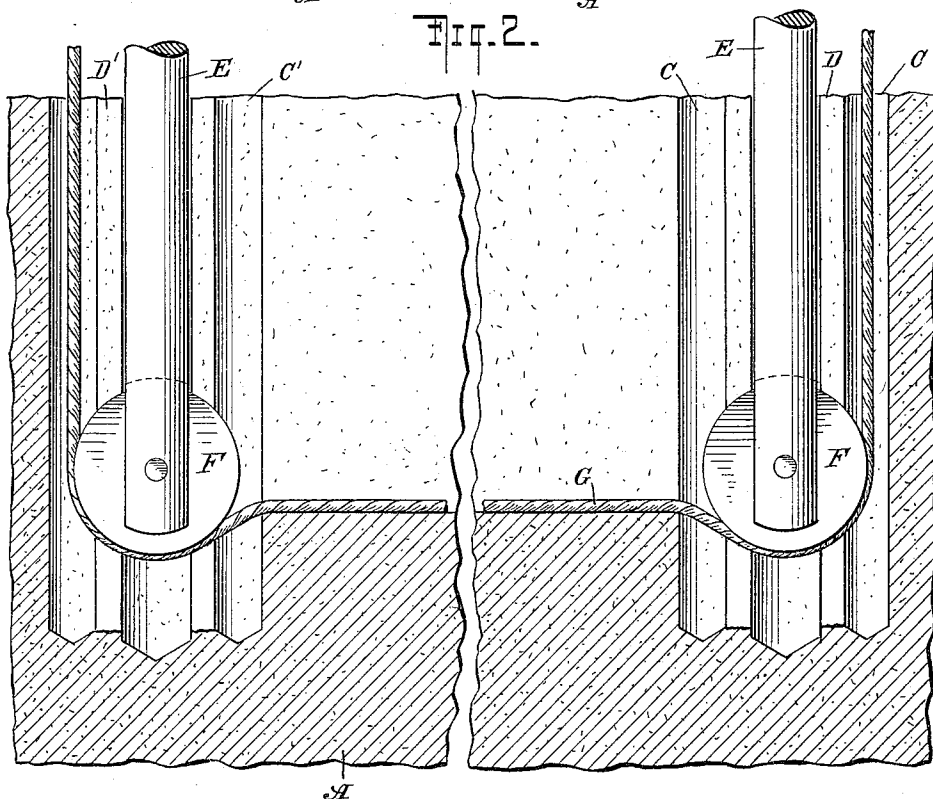


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHANNING F. MEEK, OF NEW YORK, N. Y., ASSIGNOR TO THE COLORADO-YULE MARBLE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF COLORADO.

METHOD OF SAWING ROCK.

1,050,972.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed April 18, 1910. Serial No. 555,996.

To all whom it may concern:

Be it known that I, CHANNING F. MEEK, a citizen of the United States, and a resident of New York city, borough of Manhattan, New York, have invented certain new and useful Improvements in Methods of Sawing Rock, of which the following is a specification.

This invention relates to improvements in methods of sawing rock by means of cables guided by pulleys which are supported on a rod which latter fits snugly in a drill hole, and the object of the invention is to effect certain improvements and economies to be hereinafter more fully described.

In the drawings Figure 1 illustrates a top sectional view through an apparatus which I prefer to employ in carrying out my invention; Fig. 2 is a side view of said apparatus showing a section through the rock.

In the drawings, A illustrates the rock. At appropriate places in this rock I drill holes B corresponding approximately in diameter to the pulley carrying shaft E. At some distance from the drill hole B are drilled two further holes C to the same depth as B and so located with reference to B that a straight line will connect the axes of the three circles and that the hole B shall be centrally located with reference to the two holes C. By broaching out between C and B, I create the passages D so that a slot will be produced connecting the three drill holes. By this method I am enabled to use a broader and stronger pulley F and one that may be considerably wider than the cable G. I also prevent any wear upon the cable at any point along its contact with the pulley F. At appropriate distances from the first group of drill holes, and slots B, C, D I drill three further holes and proceed in the same manner as above described thereby producing a corresponding series of holes and connections B', C', D'. The central hole B by reason of the fact that its diameter corresponds approximately with that of the shaft E guides the shaft and pulley

within the rock, the shaft being wider than the pulley; the shaft may be a hollow tube 50 or a solid rod as preferred.

It will be seen that the method devised by me dispenses with the drilling of wells and that no special machinery is necessary; the cable, of course, glides over the rock 55 longitudinally and is fed by abrasives in the usual manner. By the use of my method, I am also enabled to use only that portion of the cable as a wearing surface which glides longitudinally over the rock, and I relieve 60 the cable of the burden of sawing a penetrating slot for its own descent into the rock. I, therefore, obtain the maximum efficiency with the least wear without employing expensive machinery and tools in pre- 65 paring the rock to receive penetrating devices that carry the cable.

I am aware of the patent granted to Monticolo No. 621,268 of March 14, 1899, and do not claim the process described therein, 70 in so far as it discloses the drilling of an ordinary mine hole and the use of a very slender rock penetrating pulley and a sawing action of the cable in a line below the diameter of said pulley. 75

What I claim is—

The method of sawing rock which consists in drilling a central hole corresponding in diameter with the size of the pulley carrying shaft to the desired depth, drilling 80 two holes to approximately the same depth, one on each side of said central hole broaching out between said holes thereby creating a slot longer and wider than the pulley, sinking a pulley carried by a shaft within 85 said slot and causing a cable to travel over the rock by passing it over said pulley and over a cable guide at a distance from said pulley.

In testimony whereof I have hereunto set 90 my hand in the presence of two subscribing witnesses.

CHANNING F. MEEK.

Witnesses:

ANSON S. TAYLOR,
WM. J. BROWN.