

W. H. WRIGHT.

ROCK-DRILL.

No. 175,233.

Patented March 21, 1876.

Fig. 2.

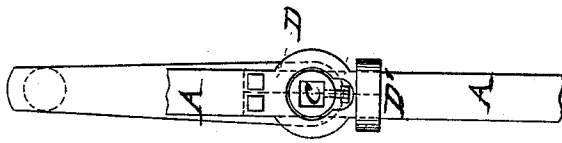
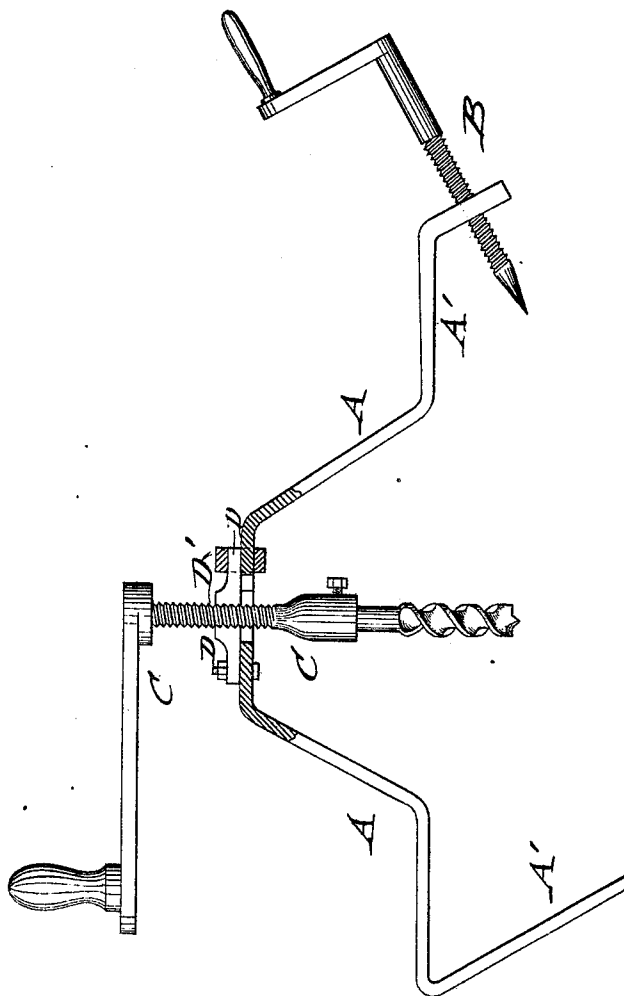


Fig. 1.



WITNESSES:

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INVENTOR:

*W. H. Wright*  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. WRIGHT, OF SUNBURY, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND JOHN WRIGHT, OF SAME PLACE.

## IMPROVEMENT IN ROCK-DRILLS.

Specification forming part of Letters Patent No. **175,233**, dated March 21, 1876; application filed March 6, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM H. WRIGHT, of Sunbury, in the county of Northumberland and State of Pennsylvania, have invented a new and Improved Drill, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved drill, and Fig. 2 a bottom view of the screw-nut for attaching feed-screw.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide for miners a drill for boring coal and rock, that is attached directly to the material to be drilled, without props or supports, and which allows the change of drills to suit the depth of bore-hole and material without removing the frame.

The invention consists of a frame with stationary or adjustable prongs, and a sectional screw-nut with link for interchanging the drill.

In the drawing, A represents the frame of my improved coal and rock drill, which has a raised central part, with the screw-nut or socket for the feed-screw, and stationary or adjustable prongs A', with suitable set-screws B, by which the frame is rigidly secured to holes or recesses cut into the coal or rock by a pick. Before the frame is attached to the coal or rock the feed-screw and drill are taken out of the frame by opening the sectional screw-nut D and removing the feed-screw C. The screw-nut D is made of two symmetrical parts, which are attached at one end by pivot-bolts to the central part of frame A, which is recessed to such width that the drills required for boring pass readily through the same.

The opposite ends of the nut-sections are locked to the frame by a link, D', that is placed over the same after the feed-screw is

inserted. By removing the link the nut-sections may be turned outwardly on the pivot-bolts, and the feed-screw and drill readily taken out for being replaced by a longer drill, and so on.

A hole of any length may thus be bored by inserting drills increasing in length in consecutive order, the frame remaining in position until the drill-hole is entirely completed.

The machine is quickly set in position, and the drilling of the hole rapidly accomplished, as the interchanging of the different drills is easily attended to.

The same machine may be made available for coal or rock by providing it with separate feed-screws and nuts for each purpose.

In case it should be necessary to prevent the vibrating of the drill, a stay or brace may be provided, to give the required rigidity to the drill-frame.

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

1. The improved machine for drilling bore-holes in coal or rock, composed of a supporting-frame with stationary or adjustable prongs and set-screws, and with a sectional screw-nut and link for taking out the feed-screw and interchanging the drills, substantially in the manner and for the purpose set forth.

2. The combination of the frame A, having recess to pass the feed-screw and drill, with a screw-nut made of symmetrical sections, applied to pivot-bolts, and locked by a sliding link, substantially as set forth.

WILLIAM H. WRIGHT.

Witnesses:

THOS. M. PURSEL,  
T. D. GRANT.