D. McMURTRIE.

Coal and Rock Drilling Machine.

No. 199,377. Patented Jan. 22, 1878.

Fig 1

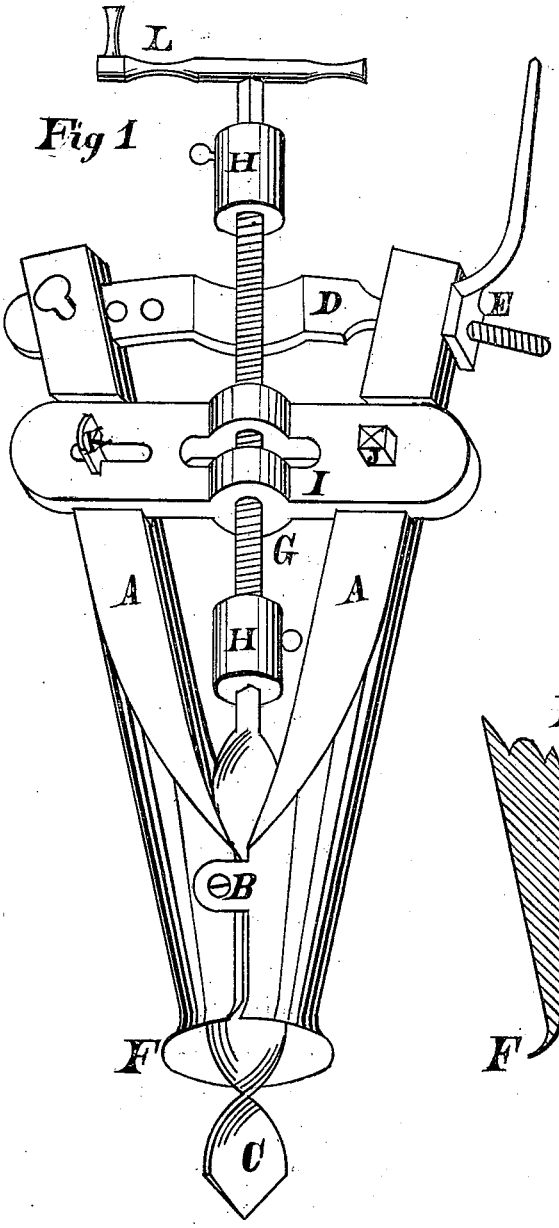
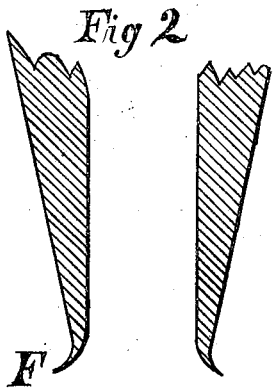


Fig 2



Witnesses;
A. S. Deans
T. J. Snowdon

Inventor;
Duncan Mc Murtrie
Per, C. R. Patterson
Atty.

UNITED STATES PATENT OFFICE.

DUNCAN McMURTRIE, OF MOOSIC, PENNSYLVANIA.

IMPROVEMENT IN COAL AND ROCK DRILLING MACHINES.

Specification forming part of Letters Patent No. **199,377**, dated January 22, 1878; application filed October 16, 1877.

To all whom it may concern:

Be it known that I, DUNCAN McMURTRIE, of the village of Moosic, town of Lackawanna, county of Luzerne, State of Pennsylvania, have invented a new and useful Improvement in Coal and Rock Drilling Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my drilling-machine. Fig. 2 is a longitudinal section of the jaws which hold the machine in position.

The object of my invention is to furnish a device by which the drilling of coal and soft rock may be done with less labor and with greater accuracy, and to secure a round hole in variable material.

In the drawings, A A are two posts or supports, one end of each of which are so formed that when fastened together with the hinge B they form a guide for the drill C, and also are made to hold the machine in position by drawing the tops of the posts A A together by the bar or cross-piece D and handle-nut E, thus throwing out the flange F, so as to hold it fast by pressing it into the coal or rock in a hole drilled for the purpose. G is a screw, with sockets H H on the ends, for holding the drill and handle or crank, and works through the reversible yoke or beam I, which is held in position by the lug J and button K, and may be reversed when the screw is run out the length of the drill, thus bringing the short end of the screw in position for putting on an extension and drilling deeper, or ready for a new hole, without turning the screw back, thus saving one-half the time and labor. L is the crank or handle, made with a stem or lug to fit into the drill-socket, and fastened in the same as the drill. I sometimes fasten the nut I to the cross-piece D.

To secure the machine to the ledge for operation, a hole is drilled of any desired depth, and of sufficient diameter to admit the front end of the machine, and when so admitted the flanges F bear firmly upon the ledge at the bottom of the hole. The nut E is then turned up, drawing the hinged bars A nearer together, and forcing the flanges F farther apart, and causing them to take a firm hold of the ledge at the bottom of the hole, thereby securing the machine firmly to the ledge. The nut I and screw G, together with the drill C, are placed in position, and the machine is ready for operation.

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

1. The hinged posts A A, provided with the flanges or hooks F, in combination with cross-piece D and handle-nut E, substantially as and for the purpose specified.

2. The combination of posts A A, cross-piece D, and handle, with reversible yoke I and screw G, all constructed, arranged, and operating in the manner and for the purpose specified.

DUNCAN McMURTRIE.

Witnesses:

T. J. SNOWDON,

J. BOYD HEAD.