

M. WRIGHT.
Machines for Mining Coal.

No. 155,692.

Patented Oct. 6, 1874.

Fig. 1.

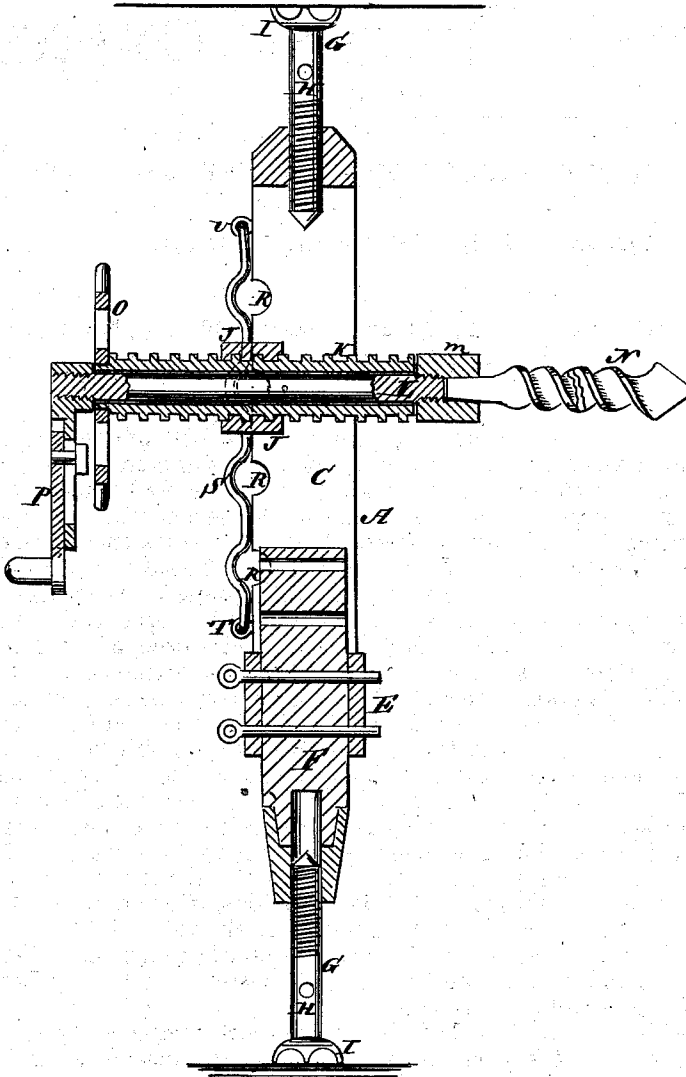
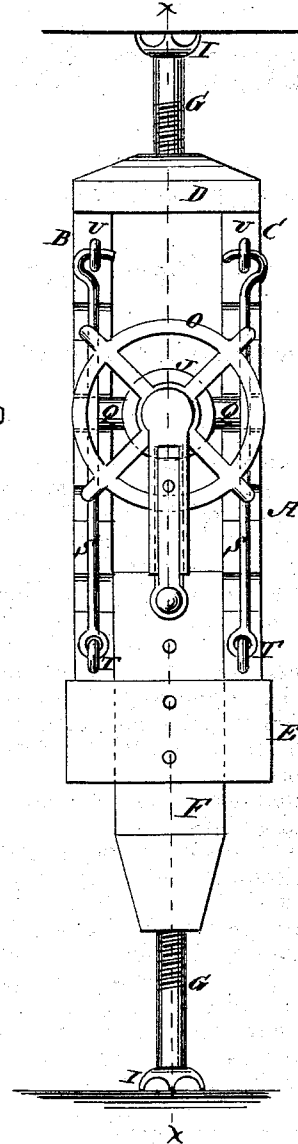


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MICHAEL WRIGHT, OF CLINTON, (ROCK POINT P. O.,) PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR MINING COAL.

Specification forming part of Letters Patent No. **155,692**, dated October 6, 1874; application filed August 10, 1874.

To all whom it may concern:

Be it known that I, MICHAEL WRIGHT, of Clinton, (Rock Point P. O.,) in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Adjustable Coal-Drilling Machine, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

In the accompanying drawing, Figure 1 is a vertical longitudinal section of Fig. 2, taken on the line *x x*. Fig. 2 is a front view of the machine.

Similar letters of reference indicate corresponding parts.

A is a stock or frame, composed of two side pieces, B and C, the cap-pieces D, and the box E. F is a sliding block, which passes through the box E, and is adjustable therein by means of the holes and pins seen in the drawing. This block F is made adjustable up and down in the stock to adapt the stock to the fixtures by which the stock is fastened. G G are fastening-screws, turned by means of a lever in the holes H. I represents loose crabs on the ends of these screws. J is the nut of the feed-screw of the drill. K is the tubular feed-screw. L is the drill-spindle, having on its end the drill-socket *m*. N is the drill. O is a hand-wheel on the end of the feed-screw. P is a crank on the end of

the drill-spindle. This drill-spindle and feed-screw are attached to the stock A by means of trunnions Q Q on the feed-nut J. These trunnions fit into the semicircular grooves R in the pieces B C, and are fastened by means of the clamp-bars S S. These bars are hinged by screw-eyes at the points T T, and hook into screw-eyes or staples at U U, so that the drill is readily released and raised or lowered, as may be desired. By this arrangement, it will be seen that the drill can be inclined in any desired direction. The stock will turn on its fastening-screws, and the drill will turn on the trunnions, so that a hole may be bored in almost any direction. The crank P is made in two parts, so that it can be lengthened or shortened to adapt it to the strength of the operator. A ball and socket may be substituted for the trunnions, if desired; but I prefer the arrangement shown.

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

The hinged bars S S, combined with frame side pieces B B, having holes R, as and for the purpose set forth.

MICHAEL WRIGHT.

Witnesses:

W. H. FOSTER,
S. C. GRAHAM.