Wayne & Evered,

Stone Drill.

No 37,652. Patented Feb. 10, 1863.

Fig. 1

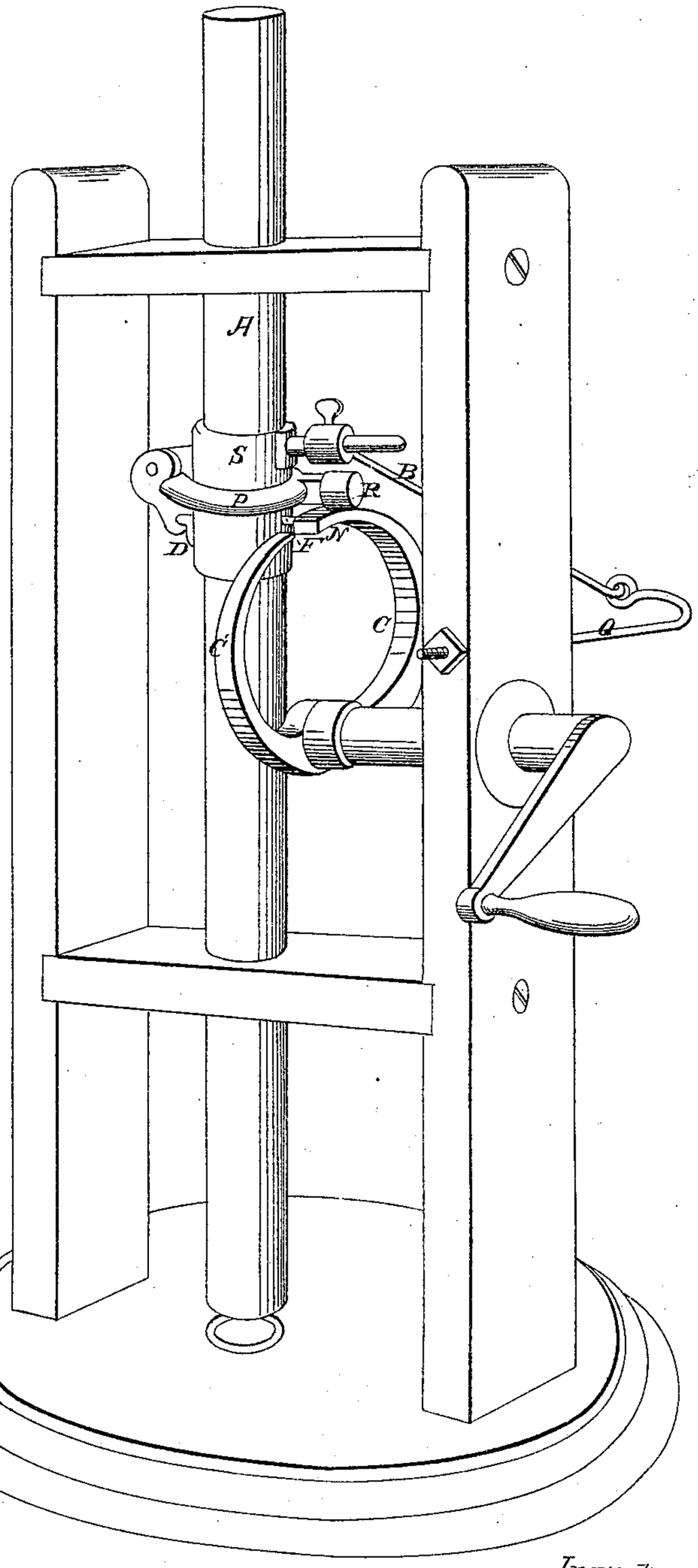
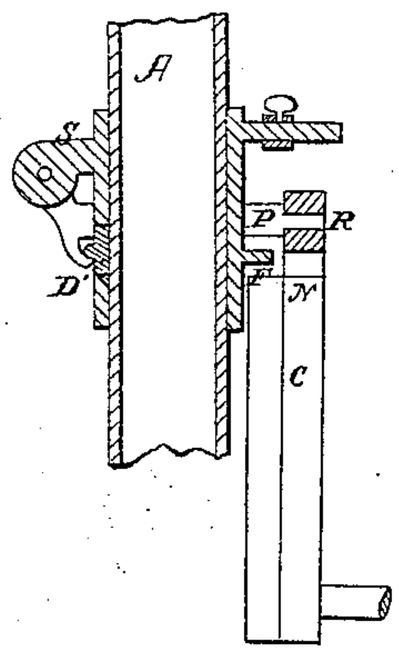


Fig. 2.



Witnesses

Thos. Robinson
Wm. M. Robinson

Inventors

James B. Wayne
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UNITED STATES PATENT OFFICE.

JAMES B. WAYNE AND WILLIAM EVERED, OF DETROIT, MICHIGAN.

IMPROVEMENT IN ROCK-DRILLS.

Specification forming part of Letters Patent No. **37,652**, dated February 10, 1863.

To all whom it may concern:

Be it known that we, JAMES B. WAYNE and WILLIAM EVERED, of Detroit, Wayne county, and State of Michigan, have invented a new and useful Improvement in Machines for Stamping Rock and Crushing Ores; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine. Fig. 2 is a section of the lifter-stem, fulcrum-collar, lever or pincher, and anti-friction roller.

C, Figs. 1 and 2, is the double cam; P, the lever or pincher; D, the die; R, the anti friction roller; S, the fulcrum-sleeve; B, the radial bar; A, the lifter-stem; N, the notch on the cam C. F is a foot on the fulcrum-sleeve S. O is a stay-bar.

The cam C, Figs. 1 and 2, lifts against the roller R on the end of the lever or pincher P, thereby pressing the die D firmly against the stem A and carrying it upward as the cam C revolves. Upon the arrival of the notch N on the cam C at the roller R, the roller R drops into the notch N, thereby allowing the stem A to fall freely to its place. The part of the cam C then supports the foot of the fulcrum-sleeve S, and gradually allows it to descend. The cam C is then ready to repeat the operation, and give at each repetition a uniform lift to the drill.

The upward motion of the fulcrum sleeve S, Fig. 1, by the cam C, actuated by the radial bar B, gives a turning motion about its axis to the stem A, which can be regulated at pleasure by raising or lowering the stay-bar O, Fig. 1, as required, thus giving a partial turn to the stem at every revolution of the machine.

We claim—

The manner of tripping the stem by means of the notched or double cams C, thereby allowing the lever or pincher to drop, while the fulcrum-sleeve is supported and gradually allowed to descend on the cam, substantially as set forth.

JAMES B. WAYNE.
WILLIAM EVERED.

In presence of—
GEORGE I. ROBINSON,
WILLIAM G. LONG.