J. J. DIMOND.

MACHINE FOR SAWING CIRCULAR SLABS.

No. 184,511. Patented Nov. 21, 1876.

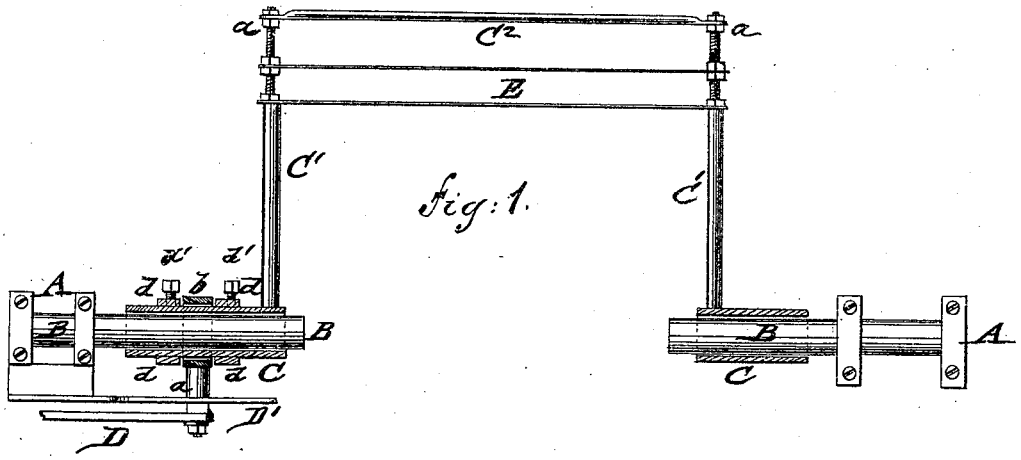

Fig: 1.

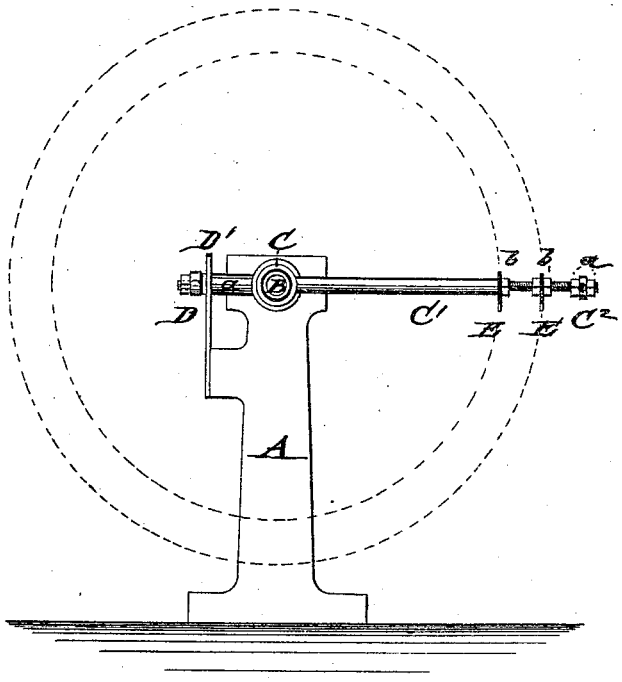

Fig: 2.

WITNESSES:

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JOHN J. DIMOND, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR SAWING CIRCULAR SLABS.

Specification forming part of Letters Patent No. **184,511**, dated November 21, 1876; application filed October 14, 1876.

To all whom it may concern:

Be it known that I, JOHN J. DIMOND, of the city, county, and State of New York, have invented a new and Improved Machine for Sawing Circular Slabs, of which the following is a specification:

Figure 1 represents a top view, partly in section, and Fig. 2 an end view, of my improved machine for sawing circular slabs.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide an improved machine for the purpose of sawing circular slabs of marble, stone, wood, and other material at a considerable saving of time, labor, and material; and the invention consists of stationary shafts, on which a saw-frame with sleeve-shaped ends is reciprocated by suitable power, the connecting-rod being secured to one of the sleeve ends by a collar or band placed intermediately between fixed collars.

In the drawing, A represents fixed supporting-standards, to which the stationary shafts or pivots B, on which the saw-frame C swings, are firmly secured. The saw-frame C is loosely applied, by sleeve-shaped ends, to the stationary shafts B, for the purpose of swinging around the same as center pivots, being reciprocated simultaneously thereon by means of a connecting-rod, D, operated by suitable power.

The parallel arms C^1 of the saw-frame C are connected at the ends by a stiffening-brace, C^2, attached rigidly by binding screw-nuts *a*.

The arms C^1 carry one or more saw-blades, E, which are adjusted to the width of the slabs to be cut on the threaded arms C^1, and secured thereto by screw-nuts *b* at both sides.

Pieces or slabs of any radius and thickness may thus be cut from a suitable block of stone or wood with considerable rapidity, the saws being run with water and sand, in the customary manner, when stone slabs are required. The saw-blades are either narrow or slightly concaved, to correspond to the cutting circle, for passing readily through the cut recesses.

The connecting-rod D is pivoted to an arm, *a*, guided in a slotted support, D′, of standard A, and attached to the sleeve of the saw-frame by a collar or band, *b*, that extends around the same, and is rigidly held in position by fixed collars *d* at both sides, which are secured to the sleeve by clamp-screws *d*′.

The saw-frame is fed to the work by a weight, pulley, and cord, spring, or other device, and is working, after having passed downward beyond the vertical line, by its own weight.

When circular slabs are required, the saws are first applied to one side of the block for cutting down a semicircle, being then applied to the other side to cut down the other semicircle until the cuts meet. The forward feed-motion of the saw-frame in a circle to the shafts, in connection with the reciprocating motion, produces the rapid cutting out of the slabs of any size and thickness.

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

The combination, with intermediately-spaced standards A A, of the saw-frame C C^1 C^2, connected therewith by pivots B, as shown and described, so that circular slabs may be sawed from the solid block.

JOHN J. DIMOND.

Witnesses:
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