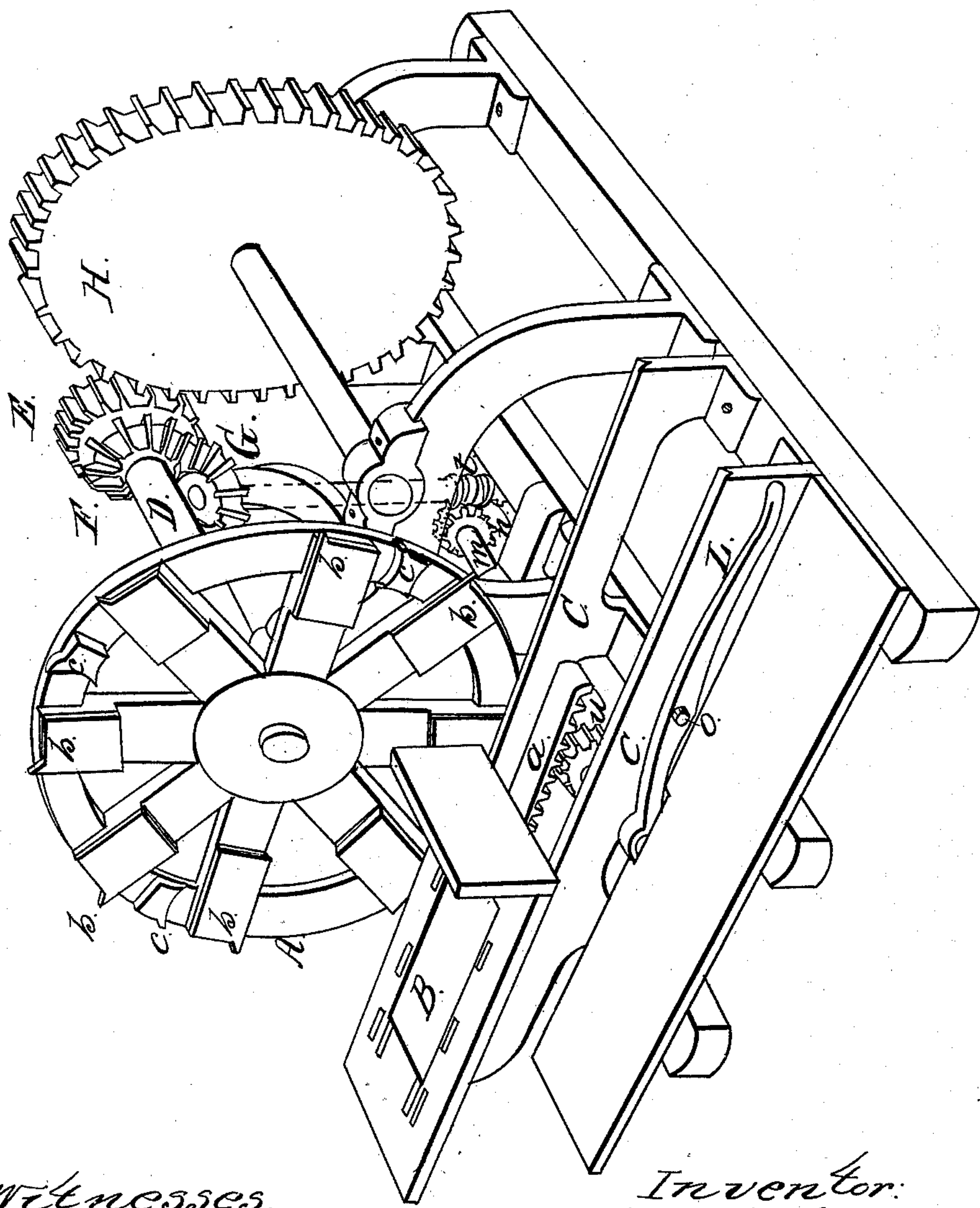


W. O. Leslie,
Dressing Stone.
N^o 77,895. Patented May 12, 1868.



Witnesses.
L. Hailer.
P. F. Dodge.

Inventor:
W. O. Leslie
by Rody & Munson
his attys

United States Patent Office.

WILLIAM O. LESLIE, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 77,895, dated May 12, 1868.

IMPROVED MACHINE FOR DRESSING STONE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM O. LESLIE, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Dressing Stone; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention relates to the dressing of stone for building and similar purposes, by machinery, and it consists in a novel arrangement of mechanism whereby the stone is fed along so as to be operated upon by a series of cutters attached to a rotating wheel.

The drawing represents my machine in perspective.

In carrying out and applying my invention, I construct a machine substantially such as shown in the drawing. This machine consists of a suitable frame, in which is mounted a wheel, A, having attached to it a series of cutters, *b* and *c*, as represented. This wheel A is mounted on a shaft, D, having on its opposite end a spur-gear, E, which receives motion from a driving-wheel, H. Upon the shaft D is also mounted a bevel-gear, F, arranged to engage with a similar bevel-wheel, G, secured to the upper end of a vertical shaft, shown in red, and having on its lower end a worm-wheel, *t*, which operates a wheel, *w*, secured to a shaft, *m*, this shaft *m* extending out at the front of the main frame, underneath a pair of ways, C, and having its outer end journalled in a lever, L, pivoted to the side of the outer way C, as shown at *o*.

Upon the ways C is placed a sliding table, B, on which the stone to be cut or dressed is to be placed and carried, this table B being arranged to move along close in front of and parallel with the face of the cutter-wheel A, as represented.

To the under side of this table B is secured a rack, *a*, into which a wheel, *u*, gears, said wheel being mounted on the shaft *m*. By operating the lever L the wheel *a* can be thrown in or out of gear with the rack *a* at pleasure, and thus the table B fed forward or stopped, as may be desired.

The operation is as follows: The table, being run back, the block of stone is placed thereon, and the machine set in motion. The table, with the stone thereon, is fed slowly along, and as it comes within reach of the cutters on the wheel A, which latter has a rapid motion imparted to it, the face of the block is cut away, leaving an even and smooth surface. If the stone is very uneven, and more than one cut is required to face it up true and smooth, the table may be run back, and the stone set over towards the wheel, and then run past again, and thus the operation may be repeated as often as may be necessary.

The cutters may be of any form or style required, they of course being so attached to the wheel that they can be removed for sharpening, or for substituting others, at pleasure.

In like manner the machine may be used for cutting slabs or blocks of stones into pieces, the carriage, in that case, being arranged to carry the stone along under the wheel, so that the projecting points of the cutters will strike upon the upper surface of the stone, and, as it is fed along, cut a narrow channel or groove therein, and this operation is to be repeated until the groove is cut of sufficient depth to permit the stone to be broken apart in a straight line, after which its edges may be dressed up, as previously described. In such cases, it will be necessary to so arrange the table on which the stone rests that it can be elevated at each successive cut, or the same object may be effected by mounting the cutter-wheel in a frame that can be raised or lowered, and thus feed the cutters to their work, the mechanical details of which it is not necessary to describe, as they will be obvious to any one skilled in the construction of machinery of this and similar kinds.

It will thus be seen, by means of a machine constructed and operating on the principle herein described, stones may be either cut or dressed with great rapidity, and at a great saving of time and expense, and thus the slow and laborious hand operations be dispensed with.

Having thus described my invention, what I claim is—

The combination of the wheel A, having the cutters attached, with the table B provided with the rack *a*, and the shaft *m* provided with the pinion *u*, and having its outer end journalled in the lever L, all arranged to operate substantially as described.

WM. O. LESLIE.

Witnesses:

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