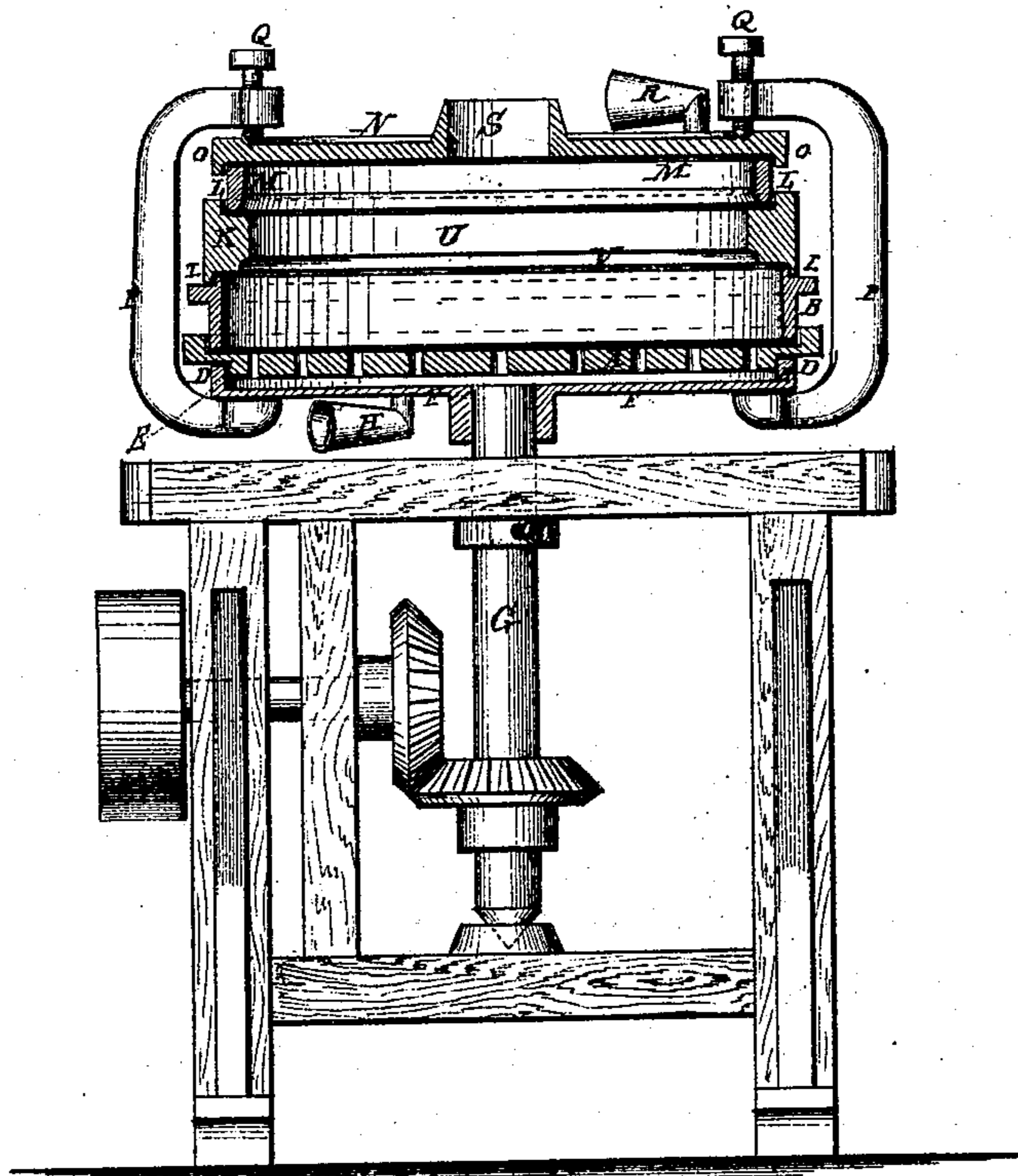


W. E. Worth,
Car Wheel Mold.

No. 110,717.

Patented Jan. 3, 1871.



Witnesses:

A. W. Shugriss
J. S. Mabee

Inventor:

W. E. Worth

PER

[Signature]
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM ELLISON WORTH, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN CAR-WHEEL MOLDS.

Specification forming part of Letters Patent No. **110,717**, dated January 3, 1871.

To all whom it may concern:

Be it known that I, WILLIAM ELLISON WORTH, of San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in Car-Wheel Molds; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in rotary molds or flasks for utilizing the effect of centrifugal force to dispose the metal in casting car-wheels.

It consists in making the nowel of a perforated disk of metal, and a ring fitted to it on which the chill-ring rests, and the cope of a top plate and ring, all fitted together and to a disk on the top of a rotary shaft, for clamping together and to the disk, and the top and bottom plates are provided with ventilators, all as hereinafter more fully specified.

The drawing represents a sectional elevation of my improved rotary mold.

A is the bottom plate of the nowel, and B the ring thereof. The plate A is provided with vent-holes for the escape of the gas from the green sand with which it is to be filled, and in which the mold for the inside of the wheel is to be made. It has an annular rabbet at the inner side, forming a projection, which sits down inside a vertical flange, E, on the upper side of the disk F, placed on the top of the shaft G, by which the mold is to be rotated. The said flange is higher than the depth of the rabbet, and supports the plate A above the surface of plate F enough to make a ventilating-space for the gases passing

through the holes in plate A to escape through, the ventilator H having a large mouth adjusted in relation to the direction of rotation of the plate to cause an active escape of the gas. The ring B of the nowel has an annular recess at the top, receiving the projection I of the chill K, which has an annular recess, L, at the inside of the top for the reception of the ring M of the cope, the top plate of which, N, has a flange, O, projecting down at the outside of it, the whole being thus connected together, so that when clamped onto the plate F by the clamps P and tightening-screws, there can be no danger of the misplacement of any part when turning at the high velocity required to act on the metal properly. The sand-mold is made in the cope for the outer face of the wheel, cross-bars being placed in it against the plate N, to provide escape-passages for the gas to ventilator R, and a hole being made at the center coinciding with the hole S in the plate for pouring in the metal. A rim, F, is raised around the said hole to prevent the overflow of the metal.

The shaft G may be provided with any suitable arrangement of gears for rotating it.

The face U of the chill forms the thread of the wheel, and the curved place V the flange.

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

The improved rotary mold or flask for car-wheels, consisting of the upper and lower disks, N F, and rings M B, constructed and arranged substantially as specified.

WILLIAM ELLISON WORTH,

Witnesses:

H. LEHNHARDT,
O. B. OAKLEY.