

J. O. GREGG.

Wood-Grinder for Paper-Pulp.

No. 163,926.

Patented June 1, 1875.

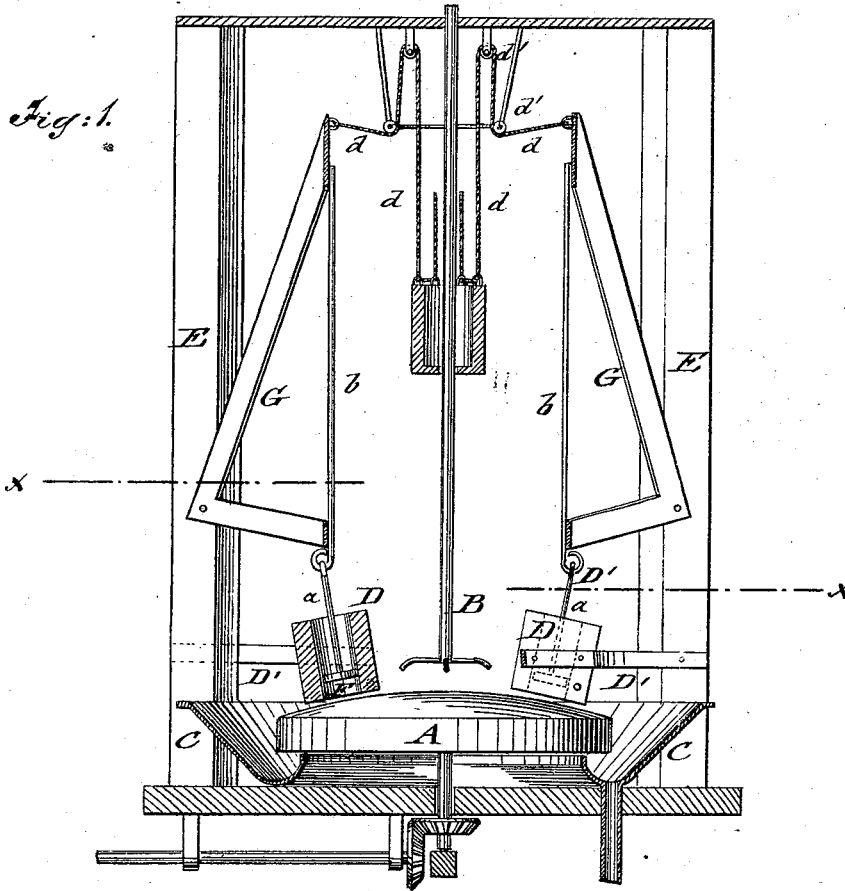
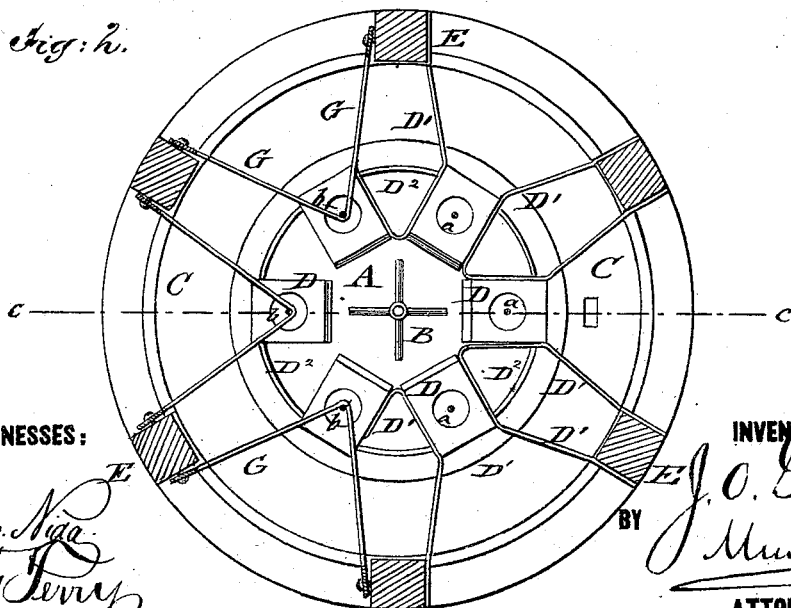


Fig: 2.



WITNESSES:

*Chas. N. ...  
A. F. Perry*

INVENTOR:

*J. O. Gregg*  
BY *Munroe*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOSEPH O. GREGG, OF ELKHART, INDIANA.

## IMPROVEMENT IN WOOD-GRINDERS FOR PAPER-PULP.

Specification forming part of Letters Patent No. **163,926**, dated June 1, 1875; application filed April 10, 1875.

*To all whom it may concern:*

Be it known that I, JOSEPH O. GREGG, of Elkhart, in the county of Elkhart and State of Indiana, have invented a new and Improved Wood-Grinding Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical central section on the line *c c*, Fig. 2, of my improved wood-grinding machine; and Fig. 2, a horizontal section of the same on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

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

In the drawing, A represents a horizontal grindstone, that is rotated by applying power to its upright bottom shaft. The upper surface of the grindstone A is convex and corrugated, by which not only the flow of water from the central water-distributing pipes B to the circumference of the stone between the wood and the grinding-surface is facilitated, but also the washing out of the fiber as soon as separated from the wood, and its passage to the surrounding trough C accelerated without being reground and broken, so as to form a more perfect, longer, smoother, and stronger fiber than by any other method. The grinding-boxes D are held in rigid position, and at suitable inclination to the stone, by strong iron straps D<sup>1</sup>, that are bolted to the sides of the posts E, passing from one post along the side of one box to the other box and back to the post. The straps are fastened thereto by bolts or thumb-screws in such a manner as to permit the raising and lowering of the boxes,

and accommodate their inclination to the face of the stone as it gradually wears away. A lower corner-connecting brace, D<sup>2</sup>, of the boxes secures them in still firmer position. The boxes D guide in center perforations the pressure-pistons F, that press the wood against the stone for grinding. The pistons connect, by pivoted rods *a*, with the lower end of double elbow-levers G, the elbow-corners of which are fulcrumed to adjoining posts E, while their upper and lower jointed parts are braced by rods *b*. The upper jointed ends are applied to cords *d*, which pass over pulleys *d'* to a central perforated weight, H, that slides along the centrally-arranged water-supply pipe.

The fulcrumed double levers swing only in vertical direction, and prevent play in any other direction, while the central weight causes every piston to grind alike, as the pressure is shifted from one to the other in case the wood in one box is softer and easier cut than in the other. The central weight is also less in the way of the workmen, and may be increased or decreased by the use of small regulating-weights placed therein.

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

The combination, with a double elbow-lever fulcrumed on different frame-posts, of a single central hollow weight, attached to all the levers to prevent jarring, shaking, or quivering of the lever.

JOSEPH O. GREGG.

Witnesses:

ROB J. HAGGERTY,  
J. M. HUGHES.