(No Model.)

# P. WIEDERER.

## GLASS BEVELING MACHINE.

No. 458,799. Patented Sept. 1, 1891.

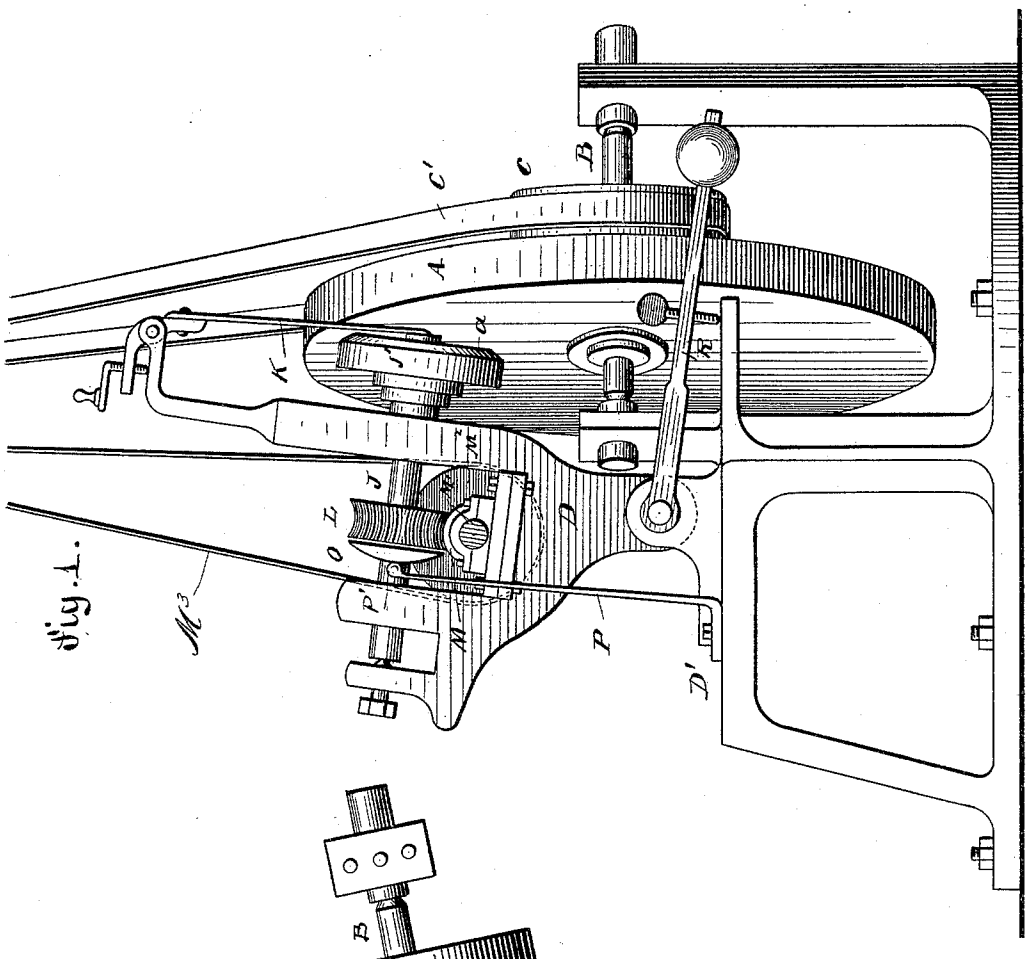


Fig. 1.

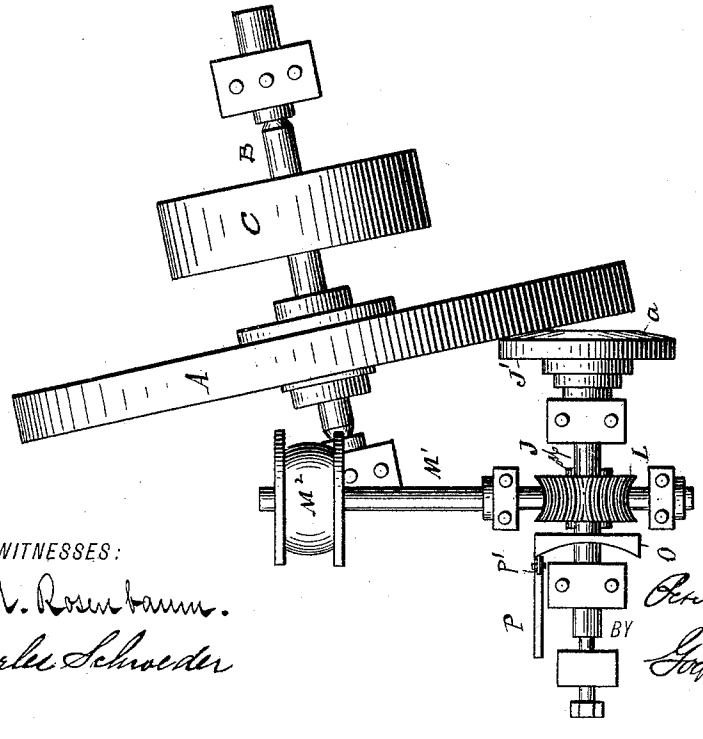


Fig. 2.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

PETER WIEDERER, OF STAPLETON, NEW YORK.

## GLASS-BEVELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,799, dated September 1, 1891.

Application filed December 31, 1890. Serial No. 376,410. (No model.)

*To all whom it may concern:*

Be it known that I, PETER WIEDERER, a citizen of the United States, and a resident of Stapleton, in the county of Richmond, State of New York, have invented certain new and useful Improvements in Glass-Beveling Machines, of which the following is a specification.

This invention relates to improvements in that class of machines that are used for beveling oval and elliptical panes of glass, such as are used for mirrors, ornaments, fancy lanterns, &c. On the machines made heretofore the bevels produced on said elliptical or oval glasses had greater width at those ends of the panes corresponding to the longer axis of the bevel or ellipse than they had at those parts of the glass corresponding to the ends of the shorter axis of the ellipse or oval, for the reason that those parts of the glass at the ends of the longer axis remained in contact with the face or side of the grinding-machine for a greater length of time, as the surface in contact with the stone is shorter than that at the ends of the shorter axis.

The object of my invention is to provide a grinding-machine which is so constructed that the bevel of said oval or ellipse of said machine is of the same width throughout the entire rim of the glass, and which machine is very simple in construction.

The invention consists in the combination, with an abrading-disk, of a rotating shaft, a head on the end of said shaft for receiving the pane of glass to be beveled, a cam-disk on said shaft, and a spring bearing on said cam-disk.

The invention also consists in the construction and combination of parts and details, which will be fully described herein, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of my improved glass-beveling machine, and Fig. 2 is a plan view of the same, parts being omitted.

Similar letters of reference indicate corresponding parts.

The abrading-disk A is mounted on the shaft B, provided with a belt-pulley C, over which the driving-belt C′ passes. A rocking frame D is mounted on the standard D′, adjacent to the side of the stone, and carries a shaft J at a slight inclination to the shaft of the disk A. Said shaft J is provided on its end with a head J′, against which the pane of glass *a* to be beveled is pressed by a spring K, connected in some suitable manner with the swinging frame D. The shaft J carries a worm-wheel L, engaging a worm M of the shaft M′, provided with the belt-pulley $M^2$, over which a belt $M^3$ passes for rotating said shaft M. A weighted arm R of the swinging frame D serves to hold the edge of the pane of glass in contact with the face or side of the abrading-disk A. On the shaft J a cam-disk O is keyed or otherwise permanently fastened, which cam-disk is so arranged as to have two opposite raised parts and two opposite recessed parts. A spring P, secured on the frame or standard D′, is provided at its upper end with an anti-friction roller P′, bearing against the edge of the cam-disk O. Said cam-disk O is keyed on the shaft J in such a manner that when part of the rim or edge of the oval or elliptic pane of glass *a* is in contact with the grindstone that corresponds to the ends of the longer axis of the ellipse or oval the roller P′ on the ends of the spring P rests on the recessed parts of the cam-disk, and when those parts of the rim or edge of the elliptical or oval pane of glass corresponding to the ends of the shorter axis of the oval or ellipse are in contact with the stone the spring P bears on the raised parts of the cam-disk. When the roller on the end of the spring P rests on the raised parts of the cam-disk O, the spring is brought in greater tension, and thus the glass is pressed with a greater pressure against the stone than when the spring P is in its normal position—that is, while resting on the recessed parts of the cam-disk. Those parts of the oval glass pane corresponding to the longer axis are beveled in the usual manner, as the usual pressure is exerted; but when those parts of the pane corresponding to the ends of the shorter axis of the disk are in contact with the stone the spring exerts its greater pressure, and thus more is ground off the edge of the pane at the end of said shorter axis. The spring P is so gaged and arranged that when it exerts a greater pressure the greater amount ground off from the edges of the pane at the ends of the shorter axis will be so great as to make

the bevel at the ends of the shorter axis equal to the former greater bevel at the ends of the longer axis, and thus an oval or elliptical pane of glass is beveled with a uniform bevel throughout its entire rim.

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

1. In a machine for beveling glass, the combination, with an abrading-disk, of a shaft having a head for receiving the pane of glass to be beveled, means for rotating said shaft, a cam on said shaft, and a spring bearing on said cam, substantially as set forth.

2. In a machine for beveling glass, the combination, with an abrading-disk, of a swinging frame, a rotating shaft mounted on said frame and having a head for receiving the pane of glass to be beveled, means for rotating said shaft, a cam-disk fixed on said shaft, and a spring bearing on said cam-disk, substantially as set forth.

3. In a machine for beveling glass, the combination, with an abrading-disk, of a swinging frame bearing a shaft having a head for receiving the pane of glass to be beveled, means for rotating said shaft, a cam-disk mounted on said shaft, which cam-disk has two raised parts and two recessed parts, a fixed spring, and a friction-roller on the free end of said spring, which friction-roller bears on said cam-disk, substantially as set forth.

4. In a machine for beveling glass, the combination, with an abrading-disk, of a swinging frame adjacent to the side of the stone, a rotating shaft on said swinging frame, which shaft is at a slight inclination to the shaft of the abrading-disk, a head on the end of said shaft, and a spring for holding a pane of glass on said head, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

PETER WIEDERER.

Witnesses:
OSCAR F. GUNZ,
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