

(No Model.)

R. FRIEDEL.
GLASS GRINDING MACHINERY.

No. 477,839.

Patented June 28, 1892.

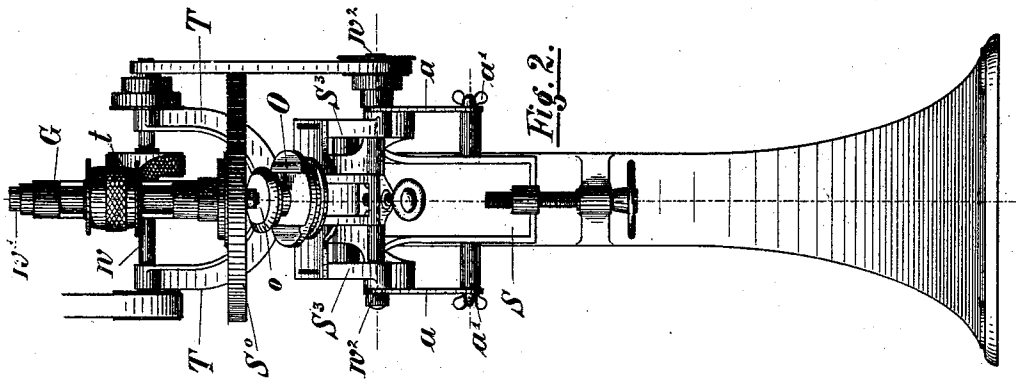
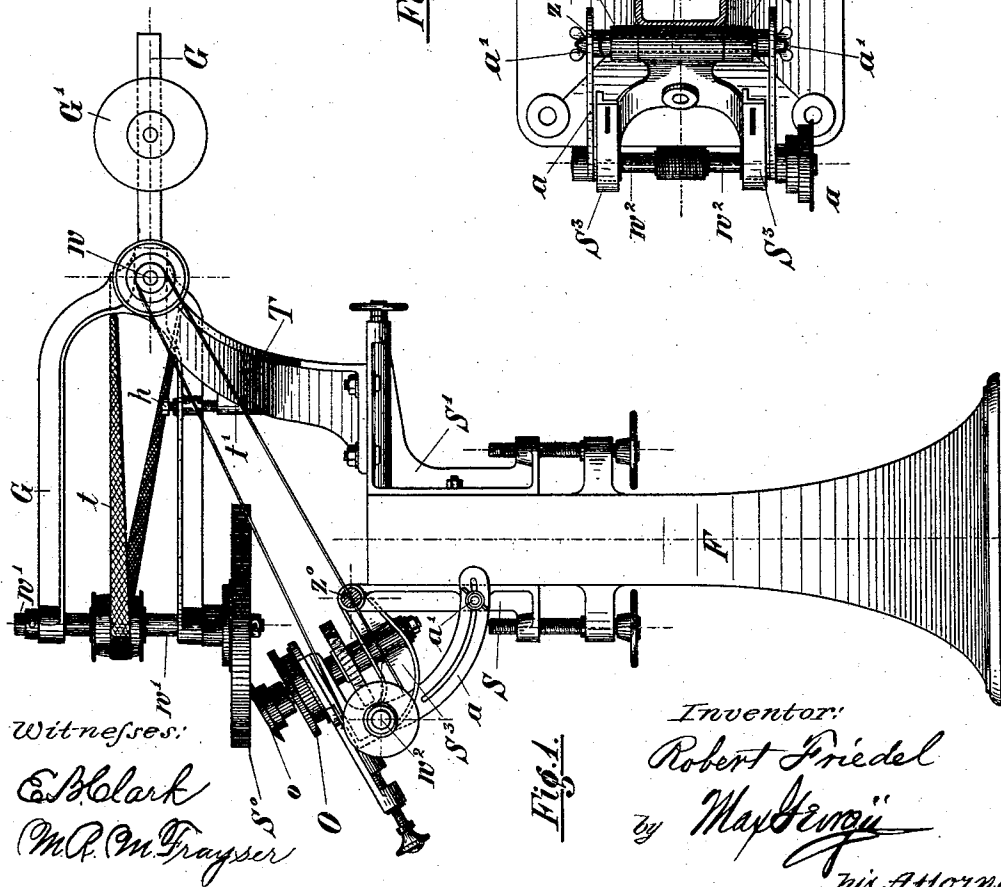
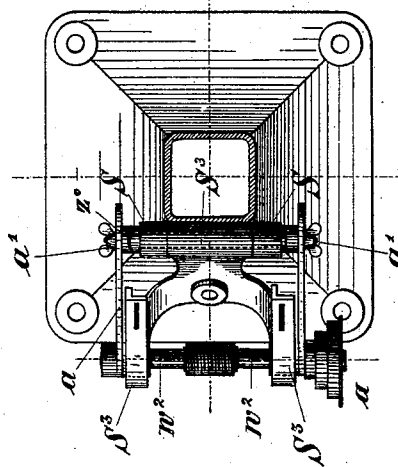


Fig. 3.



Witnesses:

E. B. Clark

M. R. M. Traylor

Fig. 1.

Inventor:
Robert Friedel
by Max Seng
his Attorney.

UNITED STATES PATENT OFFICE.

ROBERT FRIEDEL, OF STUTTGART, GERMANY.

GLASS-GRINDING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 477,839, dated June 28, 1892.

Application filed November 3, 1891. Serial No. 410,754. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FRIEDEL, a citizen of the Kingdom of Württemberg, residing at Stuttgart, Württemberg, in the German Empire, have invented a new and useful Improvement in Glass-Grinding Machinery, of which the following is a specification.

My present invention relates to glass-grinding machines for oval glasses having a swinging balanced frame, upon which the abrading-disk S^o is journaled, so as to occupy a horizontal instead of a vertical position. The grinding is performed, not by the cylindrical surface of the disk, but by its lower flat surface. Manifestly by reversing the disk S^o upon its shaft or spindle w' its upper surface may also be employed for grinding.

In the drawings, Figures 1 and 2 represent a grinding-machine embodying my invention in side elevation and front elevation, respectively; and Fig. 3 represents a plan thereof, in which, however, the abrading-wheel S^o and its frame G, the standard T, and the oval mechanism O have been omitted to make the parts to be protected in my claim more distinctly visible.

The shaft w' of the horizontal abrading-disk S^o is journaled in the frame G, and the latter loosely encircles the power-shaft w , so as to be adapted to oscillate on the same. The sliding counter-weight G' , mounted on the frame G, serves to regulate the pressure of the abrading-disk S^o . The abrading-disk is actuated by belt t from the power-shaft w , passing around the shaft w' of the abrading-disk. In order to arrest the abrading-disk S^o in a given position—i. e., to prevent the further descent of the swinging frame G when the correct bevel has been ground—the screws

h are provided on the same, the said screws resting with their ends upon lugs or projections l' of the standard. The angle of the bevel to be ground is varied by mounting the oval mechanism upon which the glass o is clamped, together with its actuating mechanism w^2 , upon a support S^3 , adapted to turn upon a spindle z^o of the vertically-adjustable table S. The support S^3 and the clutch or oval mechanism O, with the glass o , may be secured in any position by the segmental guide-strips a , provided with arc-shaped slots, and the thumb-screws a' , engaging the slots in a well-known manner. The angle of the bevels is increased or diminished according as the support S^3 is lowered or raised.

For grinding larger glasses it is advisable, instead of mounting the oval mechanism O, with support S^3 and table S, on the support F, which carries the carriage S' and standard T, supporting the frame G, to mount the same upon a separate frame, which may be made adjustable with respect to F, so that glasses of all dimensions may be ground.

I claim—

In glass-grinding machines, the combination of a machine-support, a table vertically adjustable thereon, and a support, as S^3 , pivoted thereon and bearing a glass-holding chuck, with segmental strips and thumb-screws for securing the chuck-support in various positions of adjustment, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT FRIEDEL.

Witnesses:

AUGUST B. DRAUTZ,
CARL DUSSMANN.