

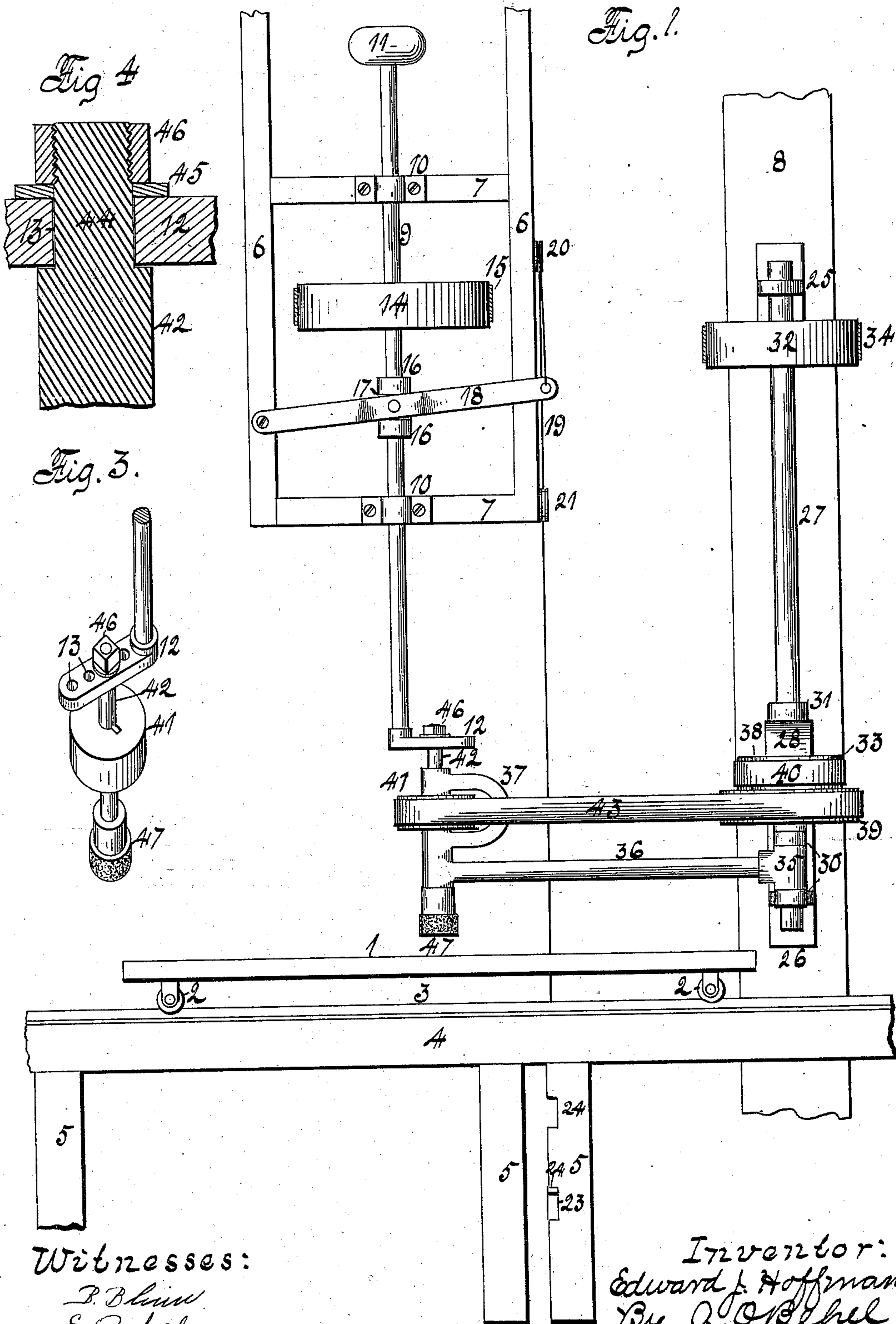
(No Model.)

2 Sheets—Sheet 1.

E. J. HOFFMAN.  
GLASS POLISHING MACHINE.

No. 560,797.

Patented May 26, 1896.



Witnesses:

P. Blinn  
E. Behel.

Inventor:  
Edward J. Hoffman  
By A. O. Behel  
att.

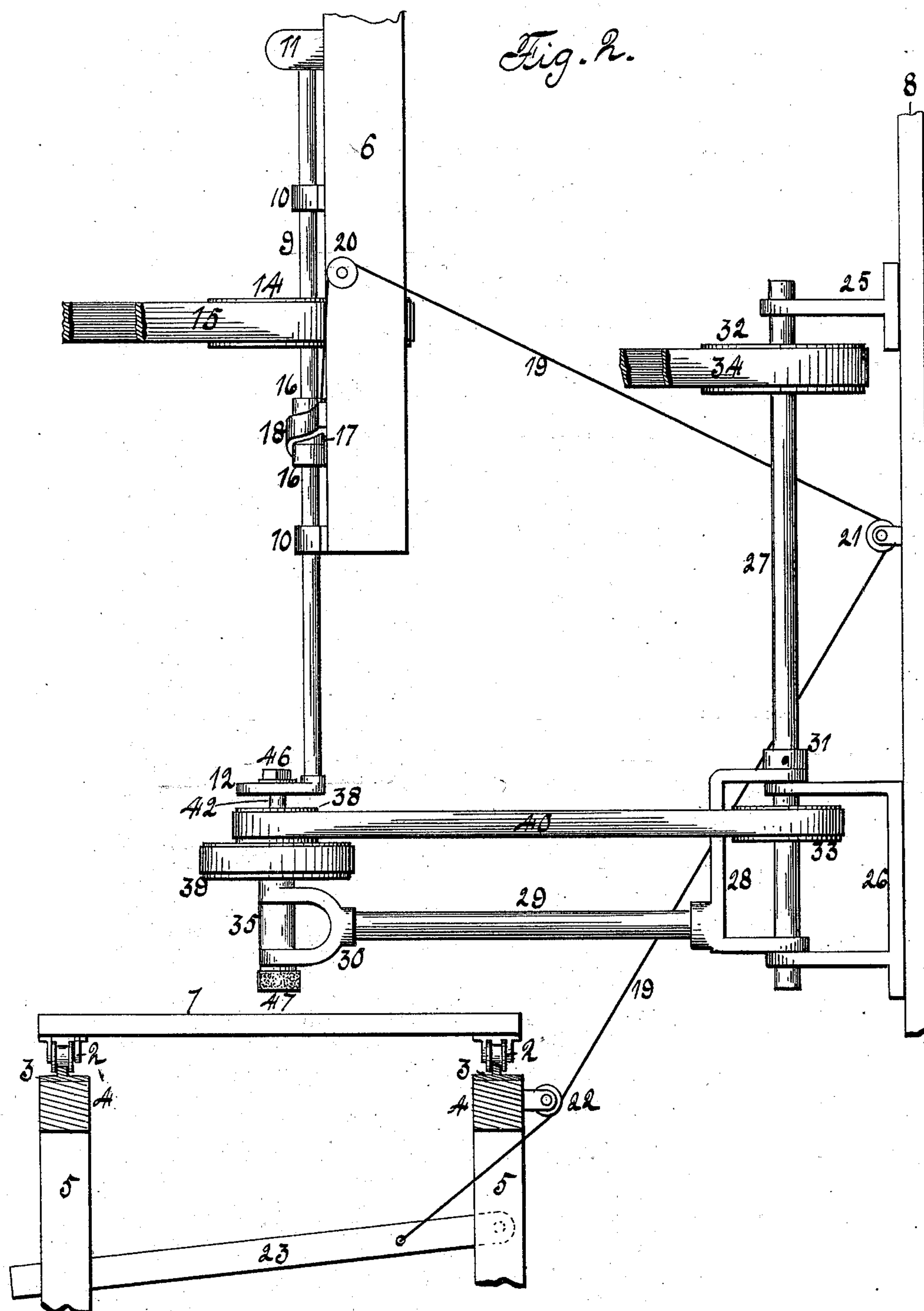
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Atty.



# UNITED STATES PATENT OFFICE.

EDWARD J. HOFFMAN, OF ROCKFORD, ILLINOIS.

## GLASS-POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 560,797, dated May 26, 1896.

Application filed January 30, 1896. Serial No. 577,463. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. HOFFMAN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Glass-Polishing Machines, of which the following is a specification.

The object of this invention is to construct a glass-polishing machine which will impart a rotary and also a bodily-circular movement to the polisher.

In the accompanying drawings, Figure 1 is a face elevation of my improved polisher. Fig. 2 is a side elevation. Fig. 3 is an isometrical representation of the polisher-head and the means for imparting movement thereto. Fig. 4 is a vertical section through the connection between the polisher-shaft and its support.

The glass plate to be polished is placed upon a table 1, which is supported by rollers 2 upon tracks 3, located upon lengthwise beams 4, held elevated by vertical supports 5, and this table thus supported enables the glass plate to be carried under the polisher and moved about.

From the timbers of the building in which the machine is located depend bars 6, connected by cross-bars 7, and a base-board 8 may be a part of the side of the building or independent thereof. A vertical shaft 9 is supported to revolve in boxes 10, secured to the cross-bars 7, having a weight 11 attached to its upper end, and to its lower end is secured a foot 12, extending at right angles thereto and provided with a series of vertical openings 13. A pulley 14 is connected to this vertical shaft and located between its supports, and is connected by a belt 15 to any motive power. To this shaft are secured two collars 16, between which is located a loose collar 17. A lever 18 has a pivotal connection at one end to one of the bars 6, its center portion formed with an opening receiving the loose collar 17, to which it is pivotally connected. The free end of this lever has a rope 19 connected thereto, passing over pulleys 20, 21, and 22 and connected to a bar 23, pivoted at one end to the vertical supports 5, the free end of the lever engaging notches 24. By means of this bar 23 the vertical shaft 9 can

be held elevated, as shown in the drawings, or can be lowered for a purpose to appear hereinafter.

To the base-board 8 are secured brackets 25 and 26, each provided with vertical openings. A shaft 27 is held supported by these brackets. A yoke 28 has a bar 29 extending therefrom and a smaller yoke 30 secured to its outer end. The yoke 28 receives the shaft 27 and is supported by the brackets 26. A collar 31, secured to the shaft 27, holds it in proper position. To this shaft are secured pulleys 32 and 33, the former connected by a belt 34 to a prime mover.

Between the arms of the yoke 30 is located a support 35, to which is connected a bar 36, having a yoke 37 on its free end. A shaft connects the yoke 30 and support 35, forming a pivotal connection between these parts. To the upper end of this shaft are secured two pulleys 38 and 39, the top pulley being connected by a belt 40 with the pulley 33.

A pulley 41 is located in the yoke 37. A shaft 42 has a feather connection therewith and is supported by the yoke. A belt 43 connects this pulley with the pulley 39. The upper end of this shaft 42 has a connection with the foot 12 by a reduced portion 44, passing through one of the openings 13 of the foot, receiving a collar 45 and nut 46 on its screw-threaded upper end, and is so fitted as to revolve therein. A polisher 47 is secured to the lower end of the shaft.

As the vertical shaft 9 is raised or lowered the short shaft 42, carrying the polisher, will also be raised or lowered, which will bring the polisher in contact with the glass plate to be polished, and the weight 11 will exert its force through these shafts upon the glass.

The glass plate being placed upon the table, the table is moved upon its roller-and-track support until the plate is brought under the polisher, when the polisher is lowered in contact therewith. A rotary movement is imparted to the pulley 32 and to the pulley 33 through the shaft 27. The motion of the pulley 33 is transmitted to the pulley 38 through the belt 40, which will also impart a rotary movement to the pulley 39, and through the belt 43 a rotary movement will be imparted to the pulley 41 and to the polisher. A rotary movement being imparted to the vertical

shaft 9 will cause the foot 12 to rotate, and as the connection of the shaft 42 with the foot 12 is off the center of the shaft 9 the shaft 42 will be carried around the vertical shaft in addition to its rotary movement imparted to it by the pulley 41. We thus have a combined rotary and bodily-circular motion imparted to the polisher. The connections between the pulley 41 and pulley 34 are such as to allow of this circular movement. The two arms 29 and 36 will move on their pivotal connection.

I claim as my invention—

In a plate-glass-polishing machine, a vertical rotary shaft having a horizontal foot at its lower end, a polisher supported by the foot and means for imparting a rotary movement to the polisher independent of the rotary movement of the vertical shaft.

EDWARD J. HOFFMAN.

Witnesses:

J. M. GOTSINGER,

A. O. BEHEL.