(No Model.)

M. QUINN.

LATHE FOR TURNING OVALS.

No. 270,479. Patented Jan. 9, 1883.

Fig: 1.

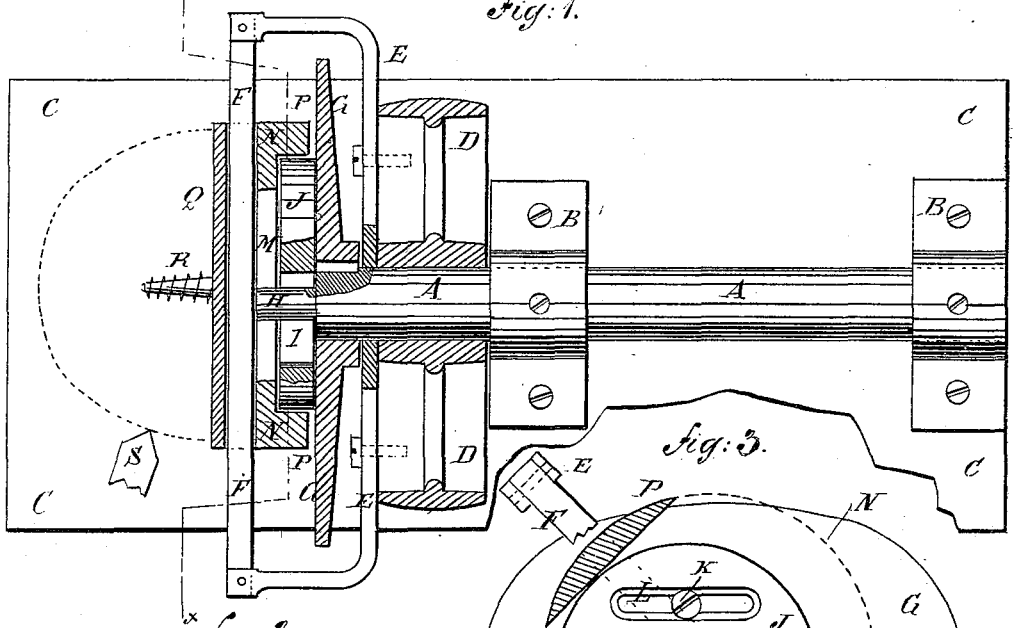
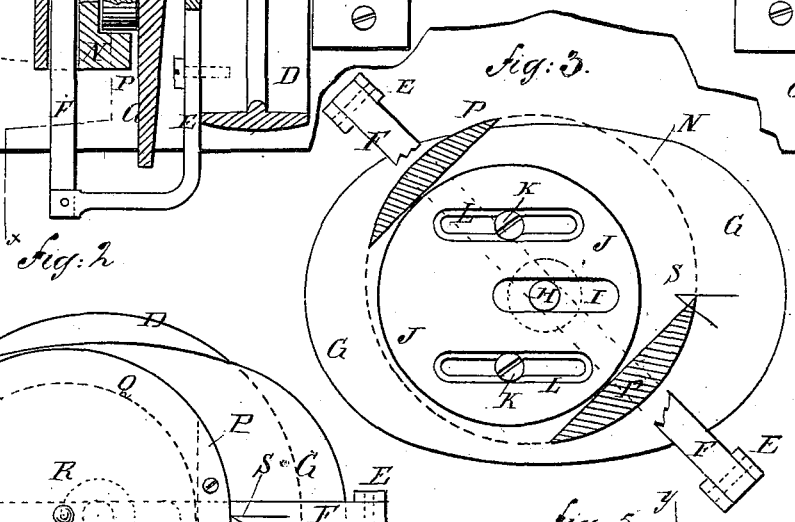


Fig: 2.



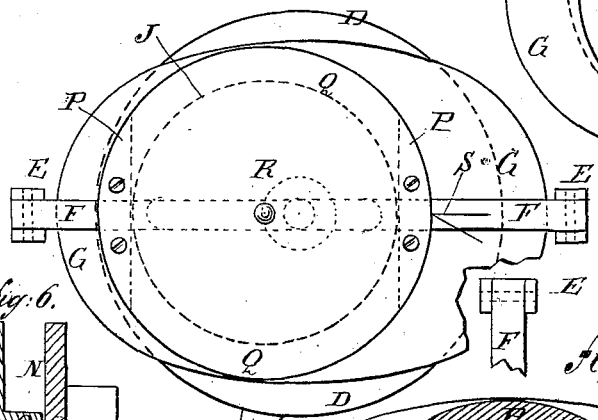


Fig: 5.

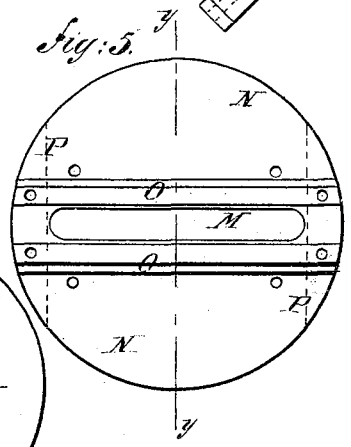


Fig: 6.

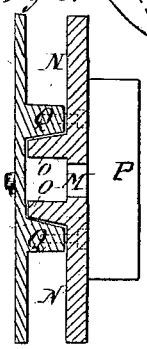
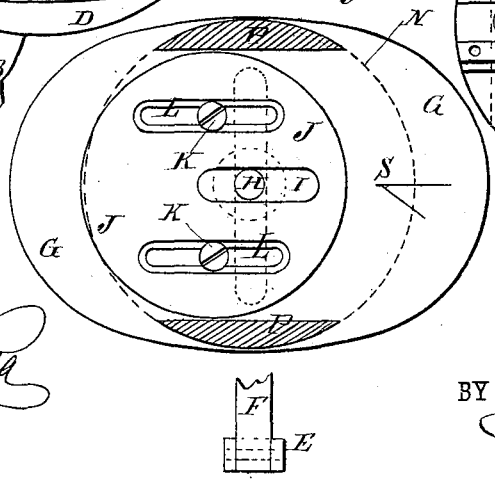


Fig: 4.



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LATHE FOR TURNING OVALS.

SPECIFICATION forming part of Letters Patent No. 270,479, dated January 9, 1883.

Application filed October 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL QUINN, of Fishkill Landing, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Lathes for Turning Ovals, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional plan view of my improvement, showing the slide-bar in a horizontal position. Fig. 2 is a front elevation of the same. Fig. 3 is a sectional front elevation of the same, taken through the line *x x*, Fig. 1, but showing the slide-bar at an angle of forty-five degrees. Fig. 4 is the same view as Fig. 3, but showing the slide-bar in a vertical position. Fig. 5 is a face view of the sliding plate. Fig. 6 is a sectional elevation of the same, taken through the line *y y*, Fig. 5.

The object of this invention is to facilitate the turning of hat-blocks and other oval work.

The invention consists in a lathe for turning ovals, constructed with a shaft carrying a stationary plate, and an adjustable eccentric plate, and a plate carrying a work-holding plate, and provided with flanges to receive and slide upon the adjustable plate, and with flanges to receive and slide upon a bar connected with a pulley revolving upon the said stationary shaft, whereby the work-holding plate will be made to slide back and forth as it is rotated, as will be hereinafter fully described.

A is a stationary shaft, attached to the upper end of standards B, the lower ends of which are attached to a table, C, or other suitable support.

Upon the shaft A, near its forward end, is placed a pulley, D, which is driven by a belt from some suitable power.

To the forward side of the pulley D is bolted a bar, E, the ends of which are bent forward at right angles, as shown in Fig. 1, and to them are secured by pins, bolts, or other suitable means the ends of a bar, F.

To the shaft A, in front of the bar E, is keyed or otherwise secured an oval plate, G, so that the said plate will be held stationary while the pulley D and the bars E F revolve. The forward end of the shaft A is turned down to form a spindle, H, or has a spindle, H, attached to it, which passes through a slot, I, in the circular plate J. The plate J is secured to the plate G by bolts or screws K, which pass through slots L in the plate J and screw into the plate G. The slot I extends from the center of the plate J toward one or both sides, and the slots L are parallel with the slot I, so that the plate J can be adjusted to be concentric with the plate G, or to have any desired amount of eccentricity, and when adjusted will be held firmly in place by the screws K. The spindle H also passes through a slot, M, formed through the center of the plate N.

Upon the forward side of the plate N, along the opposite sides of the slot M, are formed two flanges, O, at such a distance apart as to receive the slide-bar F between them.

Upon the rear side of the plate N, at the ends of and at right angles with the slot M, are formed two flanges, P, the outer sides of which are curved to correspond with the circumference of the said plate N. The inner sides of the flanges P are straight, and at such a distance apart as to receive between them the circular plate J and fit against the rim of the said plate, as shown in Figs. 1, 2, 3, and 4 and in dotted lines in Fig. 2.

Upon the parallel flanges O of the plate N is placed a plate, Q, which has parallel flanges Q′ formed upon its inner side, at such a distance apart as to receive between them the flanges O of the plate N, as shown in Fig. 6. The plate Q is secured in place by bolts passing through the plate N and into the flanges Q′, as indicated in dotted lines in Fig. 6.

To the center of the plate Q is attached a screw, R, to receive a hat-block or other work to be turned.

The machine is provided with a tool-rest in the manner of an ordinary lathe, which tool-rest is not shown in the drawings, as there is nothing new in its construction. With this construction, as the pulley D revolves it carries the bars E F, the plates N Q, and the work attached to the plate Q with it in its revolution; and as the plate N is carried around by the bar F, inserted between the flanges O, the stationary circular plate J, acting upon the flanges P, causes the said plate N to move back

and forth longitudinally upon the said bar, according as a more or less eccentric position is given to the plate J, so that the point S of the tool, while held at the same distance from the axis of the shaft A, will bring the work to a true oval, as illustrated in Figs. 2, 3, and 4.

By adjusting the position of the plate J upon the plate G ovals of any desired form can be made.

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

1. A lathe for turning ovals, constructed substantially as herein shown and described, and consisting of a stationary shaft carrying a stationary plate, and an adjustable eccentric plate, and a plate carrying a work-holding plate, and provided with flanges to receive and slide upon the adjustable plate, and flanges to receive and slide upon a bar connected with a pulley revolving upon the said stationary shaft, as set forth.

2. In a lathe for turning ovals, the combination, with the stationary shaft A, the adjustable circular slotted plate J, and the pulley D, of the flanged plate N, carrying the work-holding plate Q, and the bars E F, connected with the said pulley D, substantially as herein shown and described, whereby the work-holding plate will be made to slide back and forth as it is revolved, as set forth.

3. In a lathe for turning ovals, the plate N, made, substantially as herein shown and described, with flanges O upon one side to receive the bar by which it is rotated, and flanges P on the other side to receive the eccentric plate by which it is moved back and forth along the rotating bar, as set forth.

MICHAEL QUINN.

Witnesses:
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