(No Model.) 2 Sheets—Sheet 1.

W. T. BREWER.

LATHE CHUCK FOR TURNING ECCENTRICS.

No. 386,104. Patented July 17, 1888.

Fig. 1.

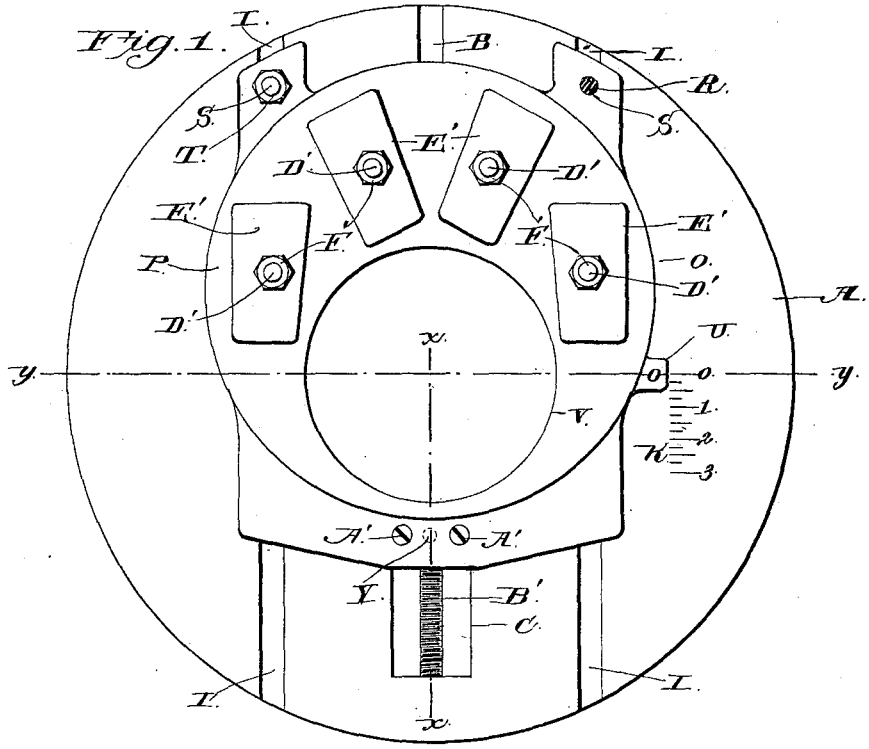
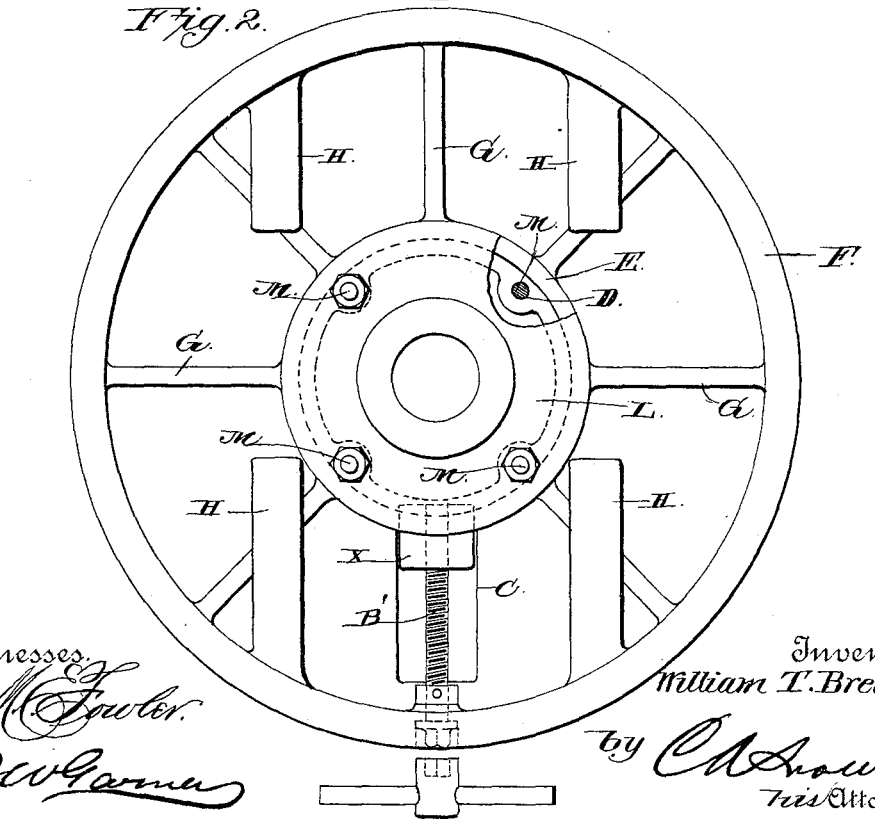


Fig. 2.



Witnesses.
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J. W. Garner

Inventor.
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(No Model.)

2 Sheets—Sheet 2.

W. T. BREWER.

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Fig. 3.

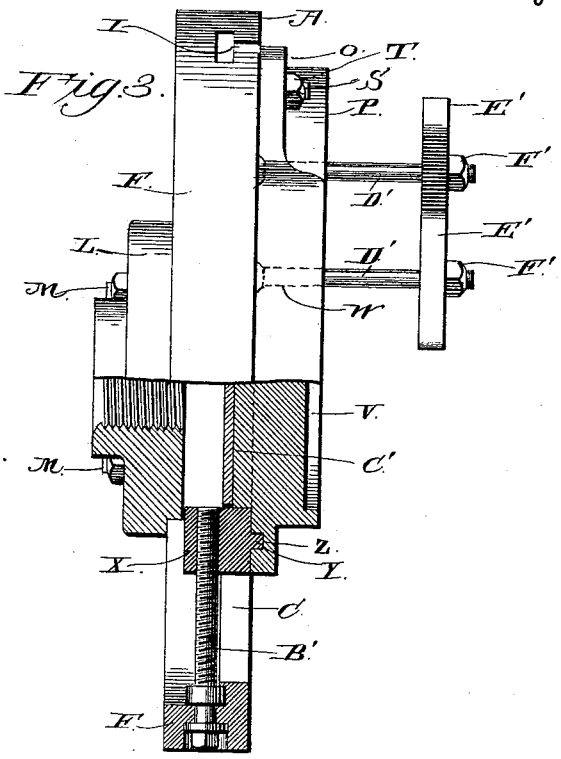
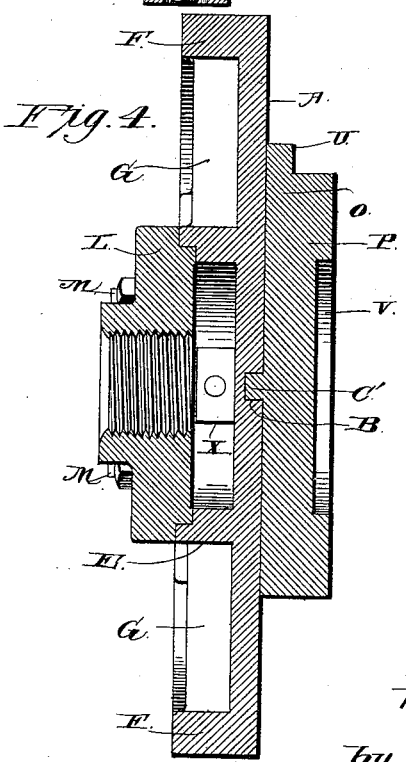


Fig. 4.



Witnesses.
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J. W. Garner.

Inventor.
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by C. A. Snow & Co.
His Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM THOMAS BREWER, OF PALATKA, FLORIDA.

LATHE-CHUCK FOR TURNING ECCENTRICS.

SPECIFICATION forming part of Letters Patent No. 386,104, dated July 17, 1888.

Application filed March 6, 1888. Serial No. 266,321. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THOMAS BREWER, a citizen of the United States, residing at Palatka, in the county of Putnam and State of Florida, have invented a new and useful Improvement in Lathe Chuck Attachments for Turning Eccentrics, of which the following is a specification.

My invention relates to an improvement in lathe-chuck attachments for turning eccentrics; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of my improved lathe-chuck. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation, partly in section, on the line *x x* of Fig. 1. Fig. 4 is a transverse sectional view, taken on the line *y y* of Fig. 1.

A represents the circular face-plate, which is provided with a central slot, B, the inner end of which terminates in a longitudinal rectangular opening, C, the said slot and opening extending almost entirely across the face-plate.

D represents a series of four openings, which are made transversely through the face-plate at equal distances from the center thereof. Formed integral with the face-plate and on the rear side thereof is a circular boss, E. Projecting from the rear side of the face-plate, at the perimeter thereof, is a circular flange, F, and G represents a series of radial ribs, which are on the rear side of the face-plate, and extend from the central boss to the flange F. Said radial ribs and said flange are also formed integrally with the said face-plate, and serve to strengthen the plate and at the same time enable it to be made as light as possible. Parallel with the slot B and opening C, and on opposite sides of the same, are offsets H, which are formed on the rear side of the face-plate.

I represents a series of four slots, which are parallel with slot B and opening C and on opposite sides of the same, the said slots being cut or formed in the face-plate and in the offset H, and being T-shaped in transverse section, as shown in Fig. 3. On one side of the face-plate is a graduated scale, K.

L represents a circular collar, which is arranged on the rear side of the circular boss E, and is provided with a series of openings which register with the openings D.

M represents bolts, which extend through the openings D in the face-plate, and have their heads countersunk in said openings, so as not to project beyond the front side of the face-plate. The said bolts also extend through the openings in the collar, and clamping-nuts are screwed to the said bolts, thereby securing the collar firmly to the rear side of the face-plate at the center thereof, as will be readily understood. The said collar is provided with a central threaded opening, which is adapted to receive a threaded projecting end of the lathe-spindle, and thereby secure the chuck to the lathe spindle.

O represents the eccentric-plate, which is of the form shown in Fig. 1, and arranged on the front side of the face-plate. On the front side of the said eccentric-plate is a circular offset, P, the diameter of which is considerably less than the diameter of the face-plate. At the projecting corners of the eccentric-plate are openings R, which register with the slots I.

S represents bolts, which have their heads fitted in the T-shaped slots I, and have their shanks projecting through the openings R and provided with clamping-nuts T, by means of which the eccentric-plate may be adjusted laterally on the face plate, so as to arrange it either concentrically or eccentrically thereon. The said eccentric-plate has projecting from one side an ear or pointer, U, which is adapted to sweep over the scale K, and thereby indicate exactly the position of the eccentric-plate on the face-plate.

V is a transverse circular opening, which is made in the eccentric-plate near one side of the circular boss P or offset thereof. The said eccentric-plate is further provided with a series of transverse openings, W, which are arranged equidistant from the center of the opening V, the said openings W having their inner ends countersunk.

X represents a nut, which is provided on one side with a projecting tenon, Y, or stud, which enters a recess, Z, on the inner side of the eccentric-plate, near one edge thereof. A pair of screws, A′, pass through countersunk openings on opposite sides of the recesses Z and engage threaded openings in the side of the

nut, and thereby secure the latter firmly to the eccentric-plate.

B′ represents an adjusting-screw which has its outer end swiveled in an opening in the flange F of the face-plate opposite the outer end of slotted opening C. The nut X projects into said slotted opening C, and the threaded stem of screw B′ engages a threaded transverse opening in the said nut. On the rear side of the eccentric-plate, at the center thereof, is a rib, C′, which engages and works in the slot B, and serves to guide the eccentric-plate on the face-plate. By turning the screw B′, having previously loosened the nuts T on bolts S, the eccentric-plate may be moved laterally on the face-plate, so as to cause either the opening V or the circular offset P of the said eccentric-plate to be concentric with the face-plate, so as to enable the turner to operate on either the perimeter of the eccentric or in the opening therein for the eccentric shaft, as will be readily understood.

In order to secure the eccentric which is to be turned to the eccentric-plate, the said eccentric is first placed thereon, bolts D′, which have their heads secured in countersunk recesses W, are passed through openings cast in the eccentric, and clamps E′ are slipped over said bolts and caused to bear firmly against the said eccentrics by means of nuts F′, so as to clamp the eccentric firmly to the eccentric-plate. If desired, two or more eccentrics may be secured side by side on the eccentric-plate and turned simultaneously.

Having thus described my invention, I claim—

1. The combination of the plate A, the eccentric-plate secured thereto and adjustable thereon, for the purpose set forth, said eccentric-plate having the circular offset P and the eccentric-opening V, and means, substantially as specified, to clamp the eccentric to the eccentric-plate.

2. The combination of the face-plate having the slots I, the eccentric-plate, and the bolts S, having their heads secured in slots I and movable longitudinally therein, said bolts clamping the eccentric-plate to plate A, substantially as described.

3. The combination of the plate A, having slot B, opening C communicating therewith, and parallel slots I, the eccentric-plate fitted on the face-plate A and having the rib or flange C′, engaging slot B, and the nut X, engaging opening C, and the adjusting-screw B′, swiveled to plate A and engaging nut X, substantially as described.

4. The combination of the face-plate having the graduated scale K and the eccentric-plate secured to the face-plate, adjustable thereon, and having the ear or pointer U, sweeping over the scale, for the purpose set forth, said eccentric-plate being further provided with the circular offset P and the eccentric-opening V, substantially as described.

5. The combination of the face-plate, the eccentric-plate secured thereto and adjustable thereon, the bolts D′, projecting from the said plate, clamps E′ on said bolts, and the adjusting-nuts F′, engaging the bolts, substantially as described.

6. The combination of the face-plate and the eccentric-plate secured thereto and adjustable laterally thereon, said eccentric-plate having the circular offset P, provided with eccentric-opening V, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM THOMAS BREWER.

Witnesses:
DAVID W. ERSKINE,
GEORGE H. STAFFORD.