

W. Johnson,

Lathe Chuck,

N<sup>o</sup> 23,472-

Patented Apr. 5, 1859.

Fig. 1

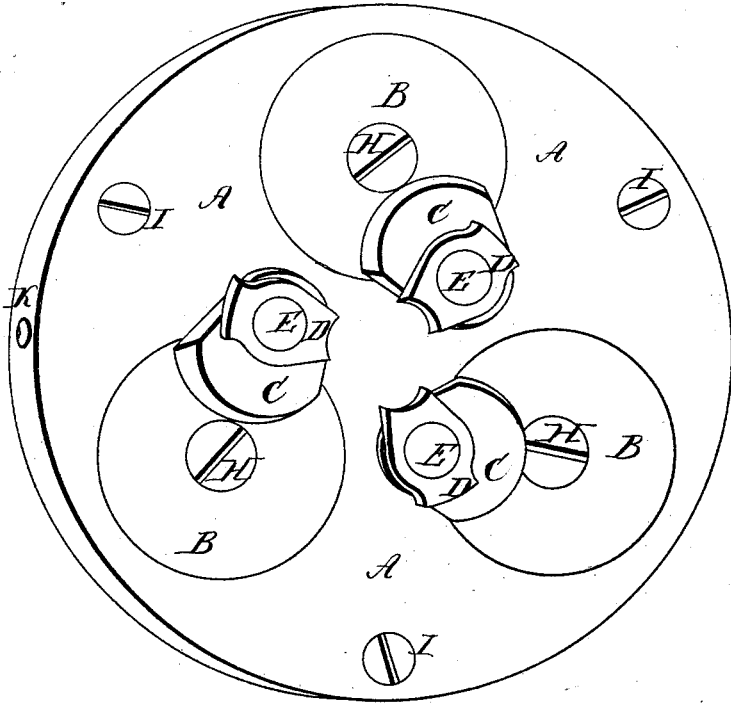


Fig. 2.

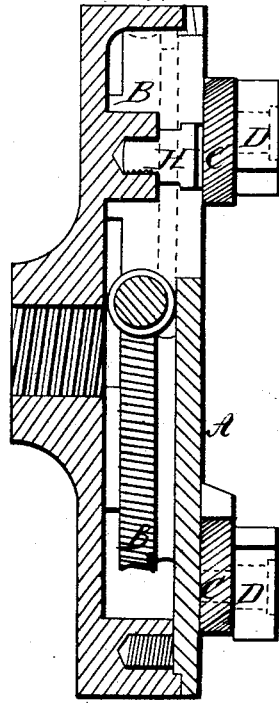
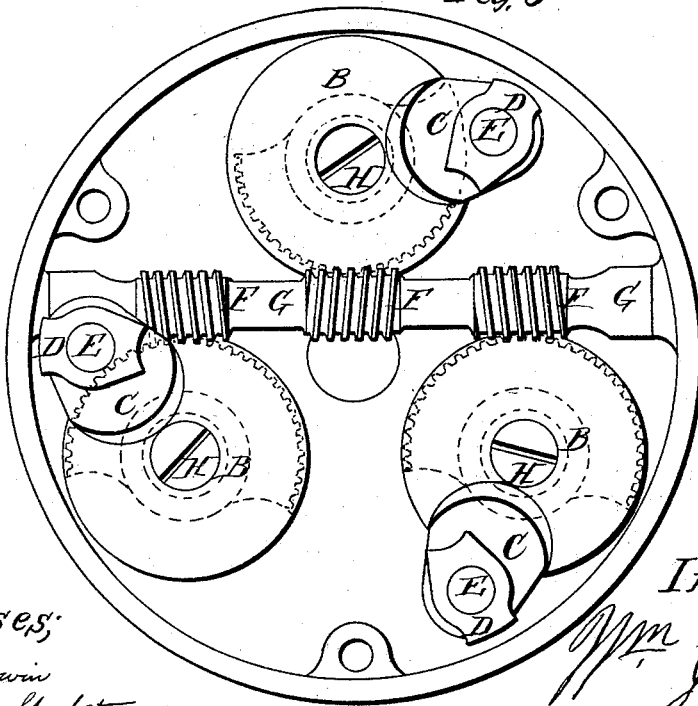


Fig. 3



Witnesses;  
Am. Cowin  
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# UNITED STATES PATENT OFFICE.

WILLIAM JOHNSON, OF LAMBERTVILLE, NEW JERSEY.

## LATHE-CLUTCH.

Specification of Letters Patent No. 23,472, dated April 5, 1859.

*To all whom it may concern:*

Be it known that I, WILLIAM JOHNSON, of the town of Lambertville, in the county of Hunterdon and State of New Jersey, have invented a new and Improved Chuck for Turning-Lathes, which I denominate my Universal Adjustable Chuck; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention consists briefly in inserting three small wheels, adapted to revolve on their respective centers, in the face of a larger wheel, or disk, running upon the mandrel or axis of the lathe; their several centers being at equal distances from the center of the mandrel or axis, and from each other; which small wheels have each an arm cast with, or firmly attached to the same, and projecting some distance on one side beyond the circumference of the small wheel, and over the face of the larger wheel or disk; each arm carrying with it another arm or lug, or it may be a circular head, with or without sharp teeth cut on its edge, movable thereon, by means of a pivot; the said small wheels, with their arms, all being made to revolve in the same direction, by means of a shaft passing between two of the said wheels on the one side, and one on the other side; having upon it three sections of worm or endless screw; each section of screw working into and driving one of the small wheels aforesaid, in such manner as to cause the ends or edges of the secondary or movable arms or heads to approach toward, or recede from the common center of motion.

In the accompanying drawings, Figure 1, is a perspective view of the chuck, in complete working order; Fig. 2 presents to view the several parts of the same, with the front face of the larger wheel removed; and Fig. 3 is a sectional side view of the same; the several letters in all the figures, referring to the same parts.

A A A is the front face or disk of the chuck, in which the smaller wheels are inserted.

B B B are the three smaller wheels; a segment of each of which is toothed to work into the worm screw F F F.

C C C are arms attached to the wheels B B B, and extending somewhat over the face A A A.

D D D are three arms or lugs or heads attached to the other arms C C C, by means of the pivots or centers E E E, which arms or lugs or heads are (by the revolution of the wheels B B B,) made to concentrate upon, and grasp firmly, the body to be turned, or bored, or otherwise wrought.

F F F are three sections of worm screw, on the shaft G G, working into the toothed wheels B B B; the middle section being cut in a direction opposite to that of the others.

H H H are three screws at the centers of the wheels B B B, to keep them in their places.

I I I are three screws by which the front face is made fast to the back part of the chuck.

K is an opening in the edge of the chuck, through which a key is inserted in the end of the shaft G G, to give the proper motion to the three wheels and the arms and heads attached thereto.

What I claim as my invention, and wish to secure by Letters Patent, is not the construction, or form, or proportion, of all or any of the parts of the chuck hereinbefore described or mentioned; but

The combination of toothed wheels and arms, actuated by a single screw shaft, so as always to present three several points of pressure centrally, upon the body to be turned or wrought, substantially as described and set forth.

WM. JOHNSON.

Witnesses:

WM. COWIN,  
A. H. PARSONS.