C. H. REID.

Lathe-Chucks.

No. 141,817. Patented August 12, 1873.

Fig. 1.

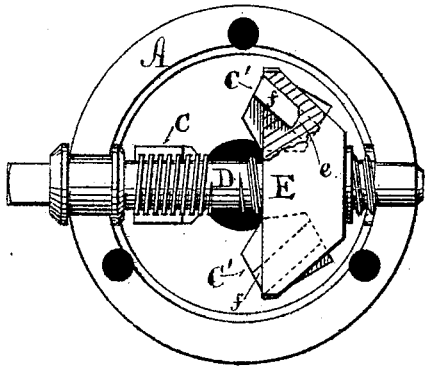


Fig. 3.

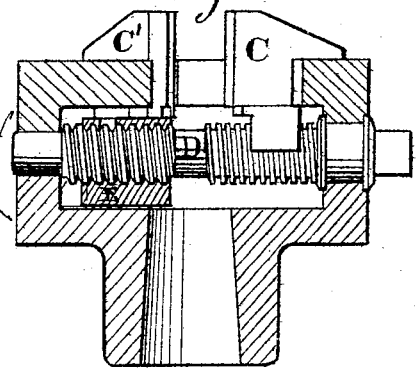


Fig. 4.

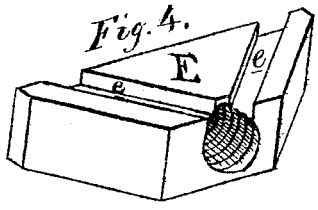
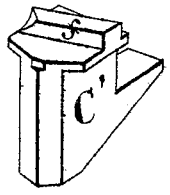


Fig. 2.



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UNITED STATES PATENT OFFICE

CHARLES H. REID, OF DANBURY, CONNECTICUT.

IMPROVEMENT IN LATHE-CHUCKS.

Specification forming part of Letters Patent No. **141,817**, dated August 12, 1873; application filed July 11, 1873.

To all whom it may concern:

Be it known that I, CHARLES H. REID, of Danbury, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Lathe-Chucks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the working mechanism of my chuck. Fig. 2 is a perspective view of one of the jaws detached. Fig. 3 is a central longitudinal section of my chuck. Fig. 4 is a perspective view of the yoke detached.

This invention relates to an improvement in three-jawed lathe-chucks, whereby said three jaws are simultaneously moved in radial directions by the revolution of a single right-and-left-hand screw.

That others may understand the construction and mode of operation of my improvement, I will particularly describe it.

A is the case of my chuck, made in two parts, and secured together by screws or other adequate means. In the face of the case A there are three radial slots, in which the sliding jaws C C′ C′ are located and moved. A shaft, D, is laid across the case A, with its ends resting in bearings formed in said case. A right-hand screw-thread is cut on one end of said shaft, and a left-hand screw-thread is cut on the other end of the same, the two screws extending nearly to the linear center of said shaft. One of said screws is of less pitch than the other. The shaft D is located directly above and in line with one of said slots, and the jaw C, which is fitted to move therein, is provided at its inner end with a segment female screw, meshing with the male screw of least pitch on shaft D, so that as said shaft is revolved said jaw is moved toward or away from the center of the chuck, as the case may be. The screw of greater pitch passes through and actuates a yoke-piece, E, in a direction opposite to the motion of the jaw C. Said yoke-piece has upon its under surface two diagonal grooves, *e e*, into which two corresponding ribs, *f f*, upon jaws C′ C′ enter; and as said yoke-piece is moved said jaws are also thereby caused to slide in their radial slots. The motion of the jaws C C′ C′ is made isochronal by a proper ratio of pitch between said screws on shaft D.

Having described my improvement, what I claim as new is—

The combination of the jaws C C′ C′ with the shaft D, having right and left hand screw-threads, as described, and the yoke-piece E, all connected, substantially as set forth, to produce a three-jawed chuck, actuated by a single right-and-left-hand screw.

CHAS. H. REID.

Witnesses:

OLIVER A. G. TODD,

THEODORE H. BENEDICT.