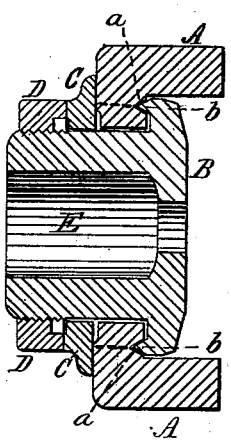
E. W. MATHEWSON.

LATHE-CHUCK.

No. 188,392. Patented March 13, 1877.

Fig. 1.



Witnesses:

John Tyler

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UNITED STATES PATENT OFFICE.

EDWIN W. MATHEWSON, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO FRANK ARMSTRONG, OF SAME PLACE.

IMPROVEMENT IN LATHE-CHUCKS.

Specification forming part of Letters Patent No. **188,392**, dated March 13, 1877; application filed February 15, 1877.

To all whom it may concern:

Be it known that I, E. W. MATHEWSON, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Lathe-Chucks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to certain improvements in that class of lathe-chucks shown and described in Letters Patent No. 154,162, dated August 18, 1874, and granted to George Doolittle and Frank Armstrong as assignees of John H. Vinton.

My invention has for its object to provide against any unevenness of wear between the contact portions of the bevel-gear and the rear half of the inclosing-shell; and with this object in view my invention consists in forming the back face of the bevel-gear with a V-shape projection, and the L portion of the containing-shell, against which it is held in contact, with a corresponding annular groove, in order that any wear resulting from friction shall be even and central, to maintain always the proper relative position of the parts, as will be hereinafter more fully set forth.

In order to illustrate more clearly my invention I have only shown so much of a lathe-chuck as is necessary to show the invention, all the other parts being well known and clearly shown and described in the Letters Patent hereinbefore mentioned, and to which I refer for a more full understanding of the construction and operation of such parts.

In the accompanying drawing, the single Figure 1 is a central longitudinal section of so much of a lathe-chuck as is necessary to illustrate my invention.

A represents the rear half of the inclosing-shell which confines the bevel-gear B, by means of which the jaws of the chuck are made to approach or recede from the center, as fully described in the Letters Patent referred to. C is a washer, and D a tightening-nut. E is the hollow shank of the gear B, and is bored out centrally, as shown, to receive the lathe-spindle. The back end of the half shell A is returned or formed with an L projection to lie behind the annular rear face of the gear B. This L portion of the shell A is provided with a V-shape groove, *a*, adapted to receive a correspondingly-shaped rib, *b*, concentric with the axis of the gear B.

It will be seen from this construction that any wear resulting from frictional contact between the gear and L portion of the shell must be in the direction of the heavy dotted line, and always concentric with the axis of the shell and gear, so that the proper relative adjustments will always be maintained between the shell and gear.

What I claim as new, and desire to secure by Letters Patent, is—

In a lathe-chuck substantially such as described, the shell A provided with an annular V-shaped groove, in combination with the gear B, provided with a corresponding rib, *b*, substantially as and for the purposes hereinbefore described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN W. MATHEWSON. [L. S.]

Witnesses:
I. C. FOWLER,
GEO. A. STAPLES.