



# UNITED STATES PATENT OFFICE.

HANS JOHNSON, OF BOSTON, ASSIGNOR TO DAVID E. BANGS, OF MEDFORD,  
MASSACHUSETTS.

## LATHE-CHUCK.

SPECIFICATION forming part of Letters Patent No. 310,060, dated December 30, 1884.

Application filed April 30, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HANS JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lathe-Chucks, of which the following is a full, clear, and exact description.

This invention relates to a lathe or center chuck; and it consists, in combination with two or more jaws constructed and arranged to move in radial slots in the end of a stock or spindle, of a sleeve arranged to screw onto said spindle and engage with said jaws, for the purpose and all substantially as hereinafter fully described.

In the accompanying plate of drawings, Figures 1 and 2 are views in side elevation and partial vertical section of a lathe or center chuck made according to this invention; Fig. 3, a front view; Fig. 4, a cross-section on line 4 4, Fig. 1.

In the drawings, A represents a stock or spindle adapted at its portion B to fit within a lathe-center or other holder, and having an external screw-thread, C.

D D are two jaws arranged to slide back and forth in a transverse radial slot, E, in the front end of said spindle, and having shoulders *a*, fitting a corresponding enlargement, *b*, of the inner end of the slit E, which prevents end-wise movement or escape of the jaws D D from the slot E. The inner end of each jaw has a depression, *d*, between which depressions a drill or other tool may be placed, to be held by the chuck.

F is a sleeve or collar having an internal

screw-thread, *f*, adapted to screw onto the outside of the stock. The outer portion, *j*, of this sleeve is flaring, as shown, and is adapted to lie within an open slot, *g*, in each of the jaws D D, which slot *g* is of a corresponding angle to the flaring portion *j*. Screwing this sleeve onto the spindle or stock, with the jaws in place and engaged therewith, forces, by its flaring edge *j* bearing against the outer portion, *h*, of the jaws, the jaws to move outward, and thus enlarges the opening *l* between the jaws, for the insertion of any drill-tool or other article, and screwing said sleeve outward forces said jaws together by bearing against the side *m* of said slot, and securely clamps and holds said tool, &c., between the jaws.

More than two jaws can be used, if desired; but two are practical, and for light work are sufficient.

Having thus described my invention, what I claim is—

The combination, with a stock or spindle, A, having an external screw-thread and radial slots E, in which are arranged to slide jaws D D, having flaring open slots *g*, of a sleeve adapted to screw onto said spindle, and having a flaring portion, *j*, to engage with said slot *g*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HANS JOHNSON.

Witnesses:

EDWIN W. BROWN,  
WM. S. BELLOWS.