T. S. POOLE.

LATHES FOR TURNING ROLLS.

No. 175,159. Patented March 21, 1876.

Fig. 1.

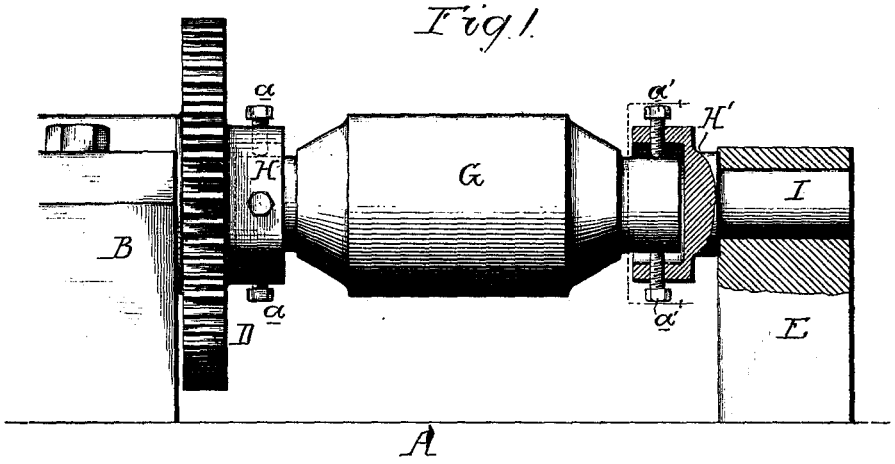
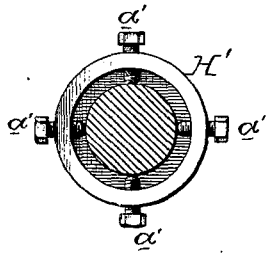


Fig. 2.



Witnesses,
Harry Howson Jr
Harry Smith

Thomas S. Poole
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE.

THOMAS S. POOLE, OF WILMINGTON, DELAWARE, ASSIGNOR TO J. MORTON POOLE AND WM. T. PORTER, OF SAME PLACE.

IMPROVEMENT IN LATHES FOR TURNING ROLLS.

Specification forming part of Letters Patent No. **175,159**, dated March 21, 1876; application filed February 28, 1876.

To all whom it may concern:

Be it known that I, THOMAS S. POOLE, of Wilmington, Delaware, have invented an Improvement in Lathes for Turning Rolls, &c., of which the following is a specification:

The object of my invention is to avoid the necessity of using the ordinary centers in lathes for turning heavy shafts, rolls, and other like articles; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a side view of sufficient of a lathe to illustrate my invention, and Fig. 2 a front view of the chuck.

In turning heavy objects, such, for instance, as rolls for rolling-mills, it has been the usual practice to rely upon the ordinary centers for suspending the roll between the two head-stocks of the lathe. As one end of the roll revolves on the center of the adjustable head-stock, that center presents a limited bearing-surface, subjected to great friction, and, owing to the weight which it has to sustain, the roll is liable to get out of truth before it is completely turned by the amplification of the usual cutters.

In order to obviate this difficulty I discard the usual centers and substitute therefor the devices shown in the drawing, in which A represents the bed of the lathe; B, part of the fixed head-stock; D, the face-plate, which may be driven by a belt through the usual system of gearing; E, the adjustable head-stock, and G the shaft to be turned in the lathe.

On the face-plate is a chuck, H, for receiving one end of the shaft, which may be adjusted and secured by any desired number of screws, *a a*, the opposite end of the shaft being received, adjusted in, and retained by a like chuck, H′, or by any other analogous chucking device, which forms a part of or is secured to a spindle, I, the latter being arranged to revolve in a suitable bearing or bearings, forming part of or secured to the movable head-stock E.

It will be evident that this chucking device, combined with its shaft and with the head-stock, forms a substantial, steady, and durable support for the outer end of the shaft, and one much better adapted to the maintenance of the truth of the shaft while it is being turned than the usual center.

I claim as my invention—

A lathe in which each head-stock, movable and fixed, has a revolving spindle, carrying an adjustable chucking device, substantially as set forth.

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

THOMAS S. POOLE.

Witnesses:

ISAAC DILLON,

JAMES M. WATSON.