No. 663,933 Patented Dec. 18, 1900.

F. O. SANDSTROM.

AXLE TURNING LATHE.

(Application filed July 11, 1900.)

(No Model.)

Fig. 1.

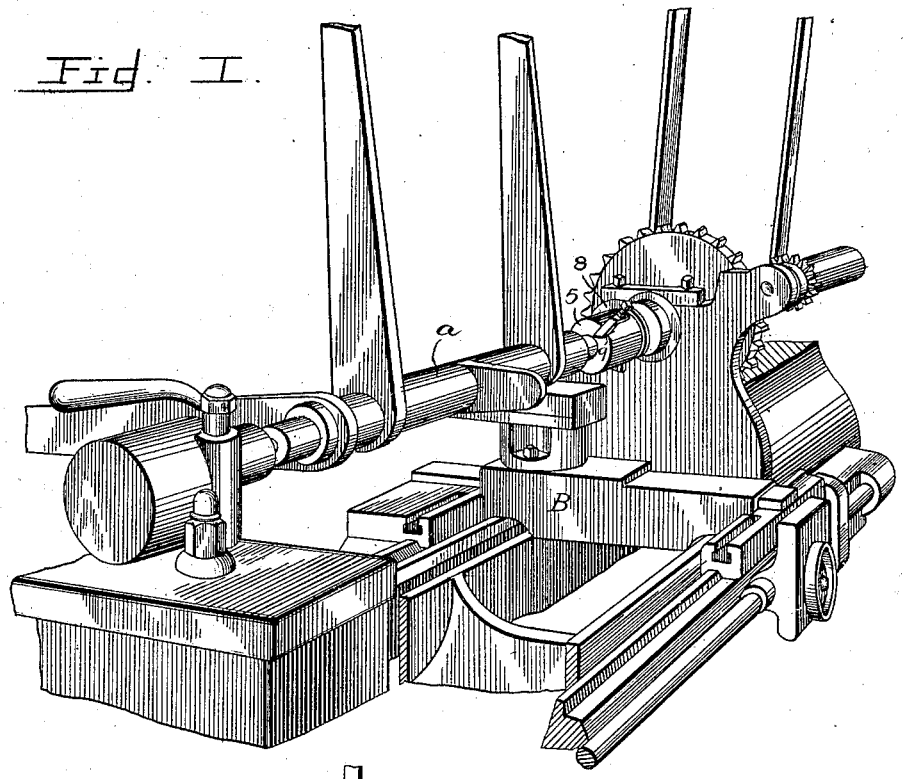


Fig. 2.

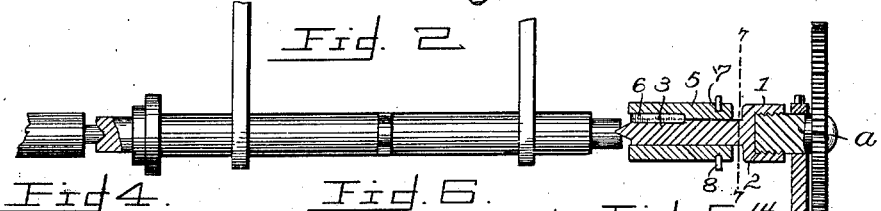


Fig. 4.

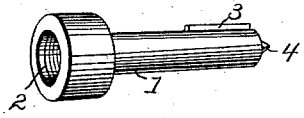


Fig. 6.

Fig. 5.

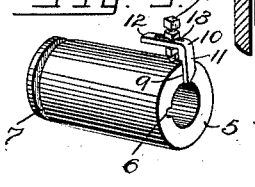


Fig. 7.

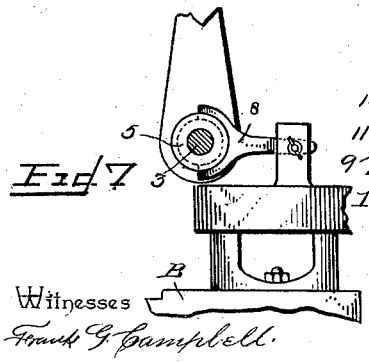
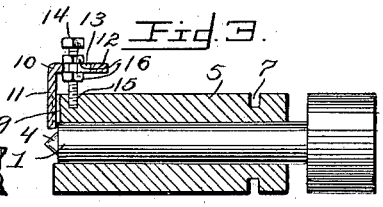


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANS O. SANDSTROM, OF AUGUSTA, GEORGIA.

AXLE-TURNING LATHE.

SPECIFICATION forming part of Letters Patent No. 663,933, dated December 18, 1900.

Application filed July 11, 1900. Serial No. 23,250. (No model.)

To all whom it may concern:

Be it known that I, FRANS O. SANDSTROM, a citizen of the United States, residing at Augusta, in the county of Richmond and State of Georgia, have invented a new and useful Turning-Lathe Tool, of which the following is a specification.

My invention is an improved tool for turning-lathes, designed especially for turning locomotive reversing-shaft journals and other journals and other work the construction and shape of which will not admit of revolution in a lathe.

My invention consists in the peculiar construction and combination of devices hereinafter fully set forth, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of a lathe provided with a turning-tool embodying my improvements, showing the same in operative position on a journal of a locomotive reversing-shaft. Fig. 2 is a sectional view of my improved turning-tool, showing the same in operative position. Fig. 3 is a detail sectional view of my improved turning-tool. Fig. 4 is a detail perspective view of the mandrel. Fig. 5 is a similar view of the sleeve. Fig. 6 is a similar view of the spanner. Fig. 7 is a detail transverse sectional view.

In the embodiment of my invention I provide a mandrel 1, at the inner end of which is a threaded opening 2, which is adapted to be screwed onto the end of the spindle A of a lathe. The said mandrel is provided with a spline 3 of suitable length, and at its outer end has a centering-point 4.

A sleeve 5, which is cylindrical in form, is adapted to fit on the mandrel 1, and has a longitudinal groove 6 in one side of its bore, which groove is engaged by the spline 3. The said sleeve, near its inner end, is provided with an annular groove 7, which is adapted to be engaged by a spanner 8, secured to the post of the carriage B of the lathe, the function of the said spanner being to move the sleeve longitudinally on the mandrel. The said sleeve is provided at its outer end, on one side, with a radially-disposed groove 9.

The tool 10 for operating directly on the work is bent in the form of a right angle to provide the arms 11 12. The arm 11 is disposed in the groove 9 on the outer end of the sleeve, and the arm 12 has a longitudinal slot 13, through which extends a securing and adjusting screw 14, the inner portion of which screw is secured in a threaded opening 15 in one side of the sleeve, near the outer end thereof. Jam-nuts 16 on the said screw secure the tool 10 thereto, and said screw, in coaction with the groove 9, secures the said tool adjustably on the sleeve.

For the purposes of illustration I have herein shown a locomotive reversing-shaft *a*, disposed in the lathe in position to be turned by my improved turning-tool, it being understood that the latter is revoluble with the lathe-spindle and that the work (the locomotive reversing-shaft) is non-revoluble. My turning-tool is especially adapted for use on work the shape of which will not admit of its being revolved by the lathe in the usual manner. The work is centered and supported at one end by the centering-point with which the mandrel is provided, as shown and as will be understood, and the sleeve being splined upon the mandrel and adapted to be moved longitudinally thereon enables the tool to be manipulated as may be required.

While I have herein shown and described a spanner for moving the sleeve longitudinally on the mandrel, any other suitable means may be employed to move the said sleeve.

Having thus described my invention, I claim—

1. The combination with the spindle of a lathe, of a mandrel secured to and rotated by said spindle, a sleeve splined on said mandrel and movable longitudinally thereon, and means to secure a tool to said sleeve, substantially as described.

2. The combination of a mandrel adapted to be secured to and rotated with a lathe-spindle, a sleeve splined on said mandrel, movable longitudinally thereon and having a radially-disposed groove in its outer end, and a tool secured on one side of said mandrel and engaged by said groove, substantially as described.

3. The combination of a mandred adapted to be secured to and rotated with a lathe-spindle, a sleeve splined on said mandrel and movable longitudinally thereon, said sleeve having a groove in its outer end and a tool secured

on said sleeve and engaged by said groove, substantially as described.

4. The combination of a mandrel adapted to be secured to and rotated with a lathe-spindle, a sleeve splined on said mandrel and movable longitudinally thereon, said sleeve having a groove in its outer end, a right-angled tool having one arm engaged by said groove, and a securing and adjusting screw connecting the other arm of said tool to one side of said sleeve, substantially as described.

5. In combination with a lathe having a revoluble spindle and a carriage, a mandrel secured to and rotated by said spindle, a sleeve splined on said mandrel and movable longitudinally thereon, means to secure a tool to said sleeve, and means to connect said sleeve to said carriage, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANS O. SANDSTROM.

Witnesses:
L. C. HAYNE,
W. C. WARDLAW.