(No Model.)

S. H. BROWN.

LATHE REST.

No. 297,967. Patented May 6, 1884.

Fig. 1.

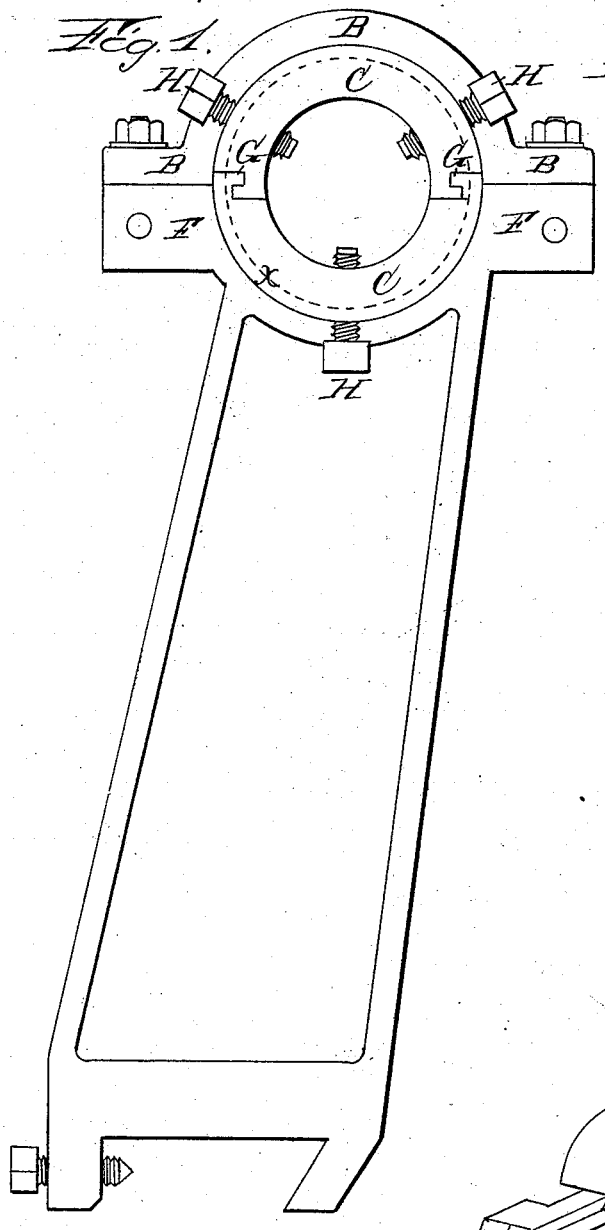


Fig. 2.

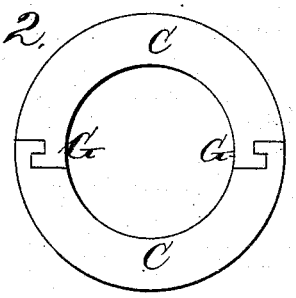


Fig. 3.

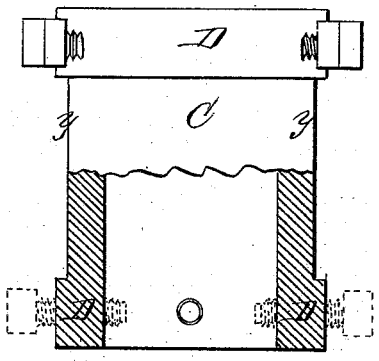
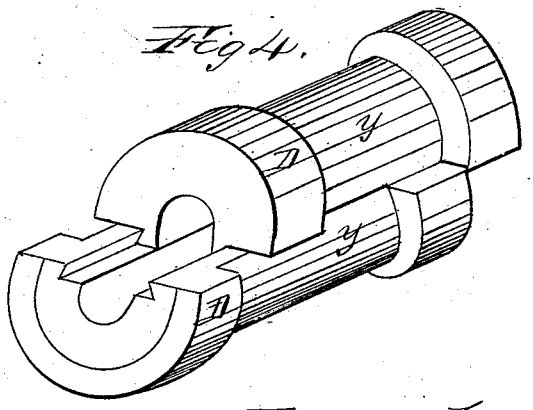


Fig 4.



Witnesses.

W. Colborne Brookes

Franklin S. Rouse

Inventor

Simon H. Brown

by Wyllys Bowers, Atty

UNITED STATES PATENT OFFICE.

SIMON H. BROWN, OF RAMAPO, NEW YORK, ASSIGNOR OF ONE-HALF TO WILLIAM W. SNOW, OF SAME PLACE.

LATHE-REST.

SPECIFICATION forming part of Letters Patent No. 297,967, dated May 6, 1884.

Application filed August 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, SIMON H. BROWN, of Ramapo, in the county of Rockland and State of New York, have invented a new and Improved Lathe-Rest, of which the following is a full, clear, and exact description, which will be more readily understood by reference to the drawings, in which—

Figure 1 is an elevation or end view of the rest as a whole. Fig. 2 is a similar view of the revolving collar or sleeve detached from the frame or bearing in which it works; and Fig. 3 is a horizontal view of the same collar or sleeve, a portion thereof being broken away to show the interior of the sleeve. Fig. 4 is a perspective view of the same sleeve, only partially put together, and showing a modified form of the locking-grooves hereinafter described.

My lathe-rest is intended, primarily, for turning perfect cylindrical surfaces upon untrue and irregular cylindrical objects—such as car-wheels when on their axles, which require to be properly centered, and which, from their nature and shape, prevent the use of ordinary centering devices, or render it desirable to avoid the use of such devices; and the nature of the invention and its limitations will be more readily understood from the following description and claims.

In the form shown in the drawings, A A represent a standard or frame, secured to the body of the lathe by means of the dovetailed groove and set-screw at the bottom, or in any other convenient manner. As shown, this groove admits of the adjustment of the rest in the direction of the axis of revolution of the lathe, whereby support can be given to the object to be turned at any desired point of its length; but the rest might also have a similar or other familiar adjustment in a lateral direction or across the axis of revolution. The frame A supports a journal-box, B F, the lower portion, F, of which may be cast with or permanently attached to the frame A, and the upper portion, B, constitutes a cover secured to the lower by bolts or other devices, which will admit of its being easily removed, but which firmly secure the two parts together when in use. As shown in the drawings, both sides of the cover are secured by screw-bolts; but one side might be hinged or pivoted to the part F; or other familiar devices might be resorted to. This journal-box B F is intended to carry the revolving sleeve C. (Shown detached in Figs. 2 and 3, and in a slightly-modified form in Fig. 4.) This sleeve is also made in two parts, constituting semi-cylindrical pieces, which are locked together by their dovetailed or rabbeted edges G. (Plainly shown in Figs. 2 and 3.) The exact shape of this rabbet is not important; but it is essential that it should lock the two parts of the sleeve together so that they cannot be separated radially by the action of the centering-screws, as such separation would bind the sleeve in the journal-box; and it is also essential that it should run in the direction of the axis of the sleeve, so that the two parts slide upon each other in that direction to bring them into position. This feature is important, because I am thereby enabled to center objects in this sleeve of nearly its own internal diameter, whereas if the rabbeted grooves ran across the axis of the sleeve the parts could not be moved into place when any object of more than this internal diameter was in the sleeve.

In Fig. 4 a modified shape of these grooves is shown, which, however, possesses both these essentials. This figure shows also how the two parts of the sleeve slide upon each other. The ends of the sleeve are of larger external diameter than the middle, so that when the two parts are in position it is provided with two heads, D D, and a wide circumferential groove, *y*, Fig. 3, between them, the external diameter of the sleeve in this groove and the width of the groove being made to fit properly and correspond with the internal diameter and length of the journal-box. The dotted line *x x* in Fig. 1 indicates the internal circumference of the box and the external circumference of the groove. The heads D D are provided with radial centering-screws H H H, Figs. 1 and 3, or provided with equivalent centering devices.

In use, the frame A being properly secured to the lathe, the cover B of the box is removed, and one part of the sleeve C is placed in the lower bearing, F, which will fit the groove *y* of the sleeve, and the latter be prevented from

sliding endwise by the heads D. The shaft or axle being then placed in this part of the sleeve, and the other part slipped into position upon it, the cover B of the box is secured, fitting in the groove of the latter part of the sleeve, and the shaft or axle is centered by means of the screws H. The whole is thus firmly locked together, permitting of the free revolution of the sleeve in the box, and of course any suitable lubricating devices can be provided to facilitate this revolution.

The heads D D upon the sleeve serve not only to prevent endwise movements of the latter, but furnish also bearings for the centering-screws.

By the features of construction claimed to be my invention, and hereinafter pointed out, I secure cheapness of construction, facility of adjustment, and firmness of the parts in working, which is necessary to accurate work.

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

1. The revolving sleeve or collar C, of two semi-cylindrical parts provided with longitudinal locking-grooves G, and proper centering devices, substantially as described.

2. The revolving sleeve or collar C, consisting of two semi-cylindrical parts provided with devices whereby they may be brought together and locked by a movement in the direction of their axis, and also with proper centering devices, substantially as described.

3. The combination of a revolving sleeve having a groove, *y*, in its middle, heads D D, and centering-screws H, with the journal-box in two parts, B F, fitting the groove *y*, substantially as described.

SIMON H. BROWN.

Witnesses:
MARCEL PRINEVEAN,
LEWIS SIBLEY.