

(No Model.)

J. N. SPENCER.
POLISHING DEVICE.

No. 275,954.

Patented Apr. 17, 1883.

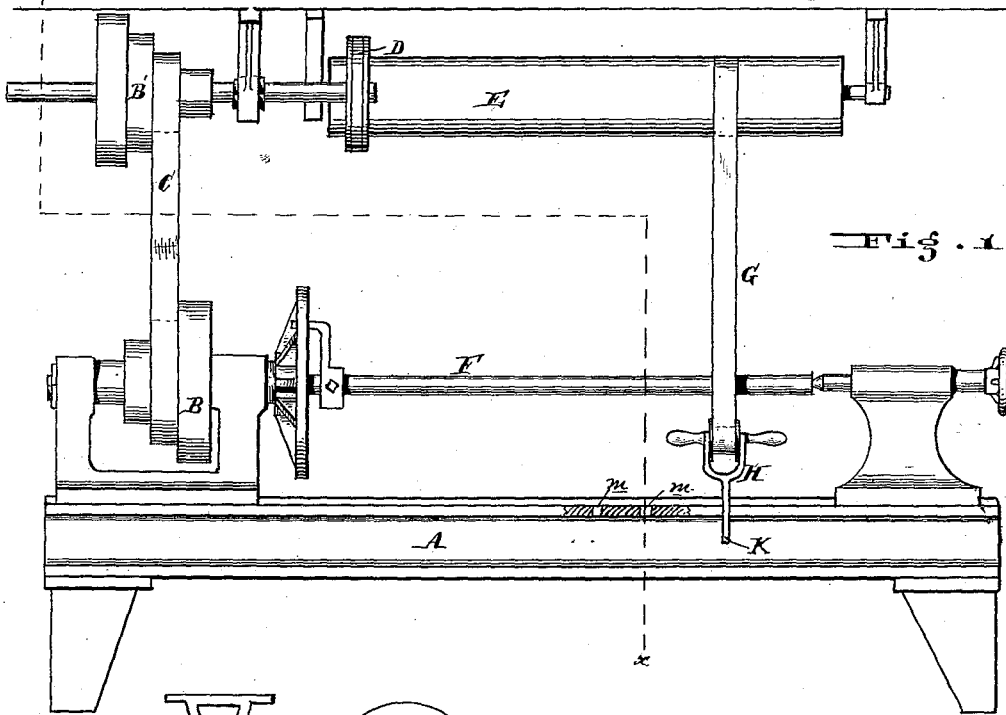


Fig. 1

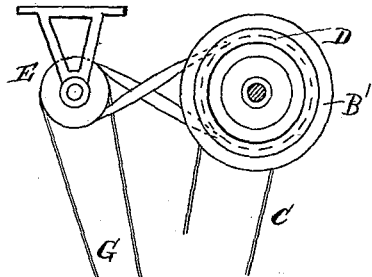


Fig. 2

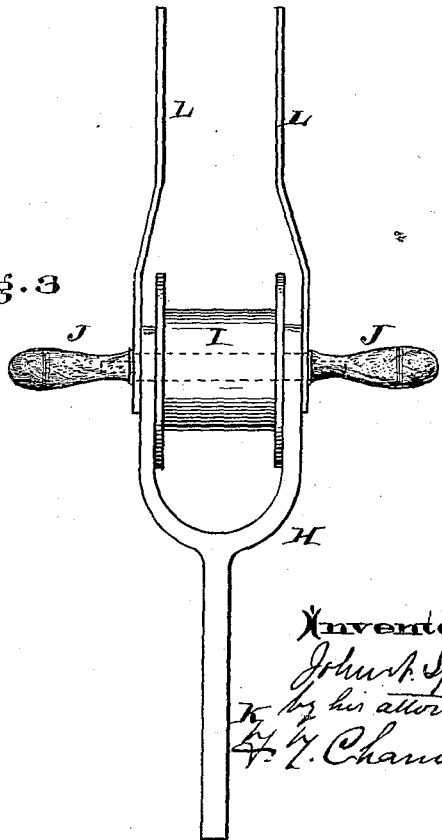


Fig. 3

Attest
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Inventor
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by his attorney
H. T. Chambers

UNITED STATES PATENT OFFICE.

JOHN N. SPENCER, OF NEWARK, ASSIGNOR OF ONE-HALF TO THOMAS S. BELLAH, OF WILMINGTON, DELAWARE.

POLISHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 275,954, dated April 17, 1883.

Application filed January 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. SPENCER, a citizen of the United States, residing at Newark, county of New Castle, State of Delaware, have invented a new and useful Improvement in Polishing Devices, to be used in combination with lathes and for other purposes.

Of my invention the following is as full, true, and accurate a description as I am able to give, reference being had to the accompanying drawings, which form a part of this specification.

The object of my invention is to provide a polishing device of special fitness to be used in combination with a lathe—such as is used in the finishing of carriage and wagon axles, shafting, spokes, and similar regular and irregular forms in metal or wood—though it is obvious that my device may be used independently.

Heretofore axles and similar articles have been finished by first filing and then polishing them with oil and emery on a stick. By my device this work is done more rapidly and in a better manner, and without the necessity of the separate operation of filing.

Reference being now had to the drawings, Figure 1 is a view of a lathe fitted with my polishing device. Fig. 2 is a sectional view of the same through the line *xv*, and Fig. 3 is a view of the handle by which the operator applies my device.

A is a lathe of any ordinary construction; B B', speed-pulleys; C, the usual belt connecting the pulleys B B'.

D is a pulley secured to the projecting end of the shaft carrying the speed-cone B'.

E is a drum secured, as shown in the drawing, or in any desired way, so as to be parallel to the lathe, and rotated by means of a belt connecting it with the pulley D, as shown in Fig. 2.

F is the axle or shaft which is to be polished, and is secured in the lathe, so as to be rotated, in the ordinary way.

G is a belt, made of leather or other suitable material, and having its outer surface covered with powdered emery or other fine polishing-powder. This belt passes around the drum E and the pulley I secured in the

handle H. This handle or operating device H is provided with the pulley I and the handles J J, as shown in Fig. 3; and I prefer to furnish it also with the projection K, which may be stuck into a hole, M, in the side of the lathe when the device is not in use, so as to keep the emery-belt away from the axle, shaft, &c., being worked in the lathe. The handle may also be provided with guides L L, to aid in moving the belt along the drum.

In operation the pulley D and drum E are connected by a belt, as shown in Fig. 2, and in such a manner that the motion of the drum E shall be in the opposite direction to that of the lathe.

In operation the axle or other form to be smoothed and polished is placed in the lathe and rotated in the usual way. The operator then grasps the handles J J, and by their means presses the emery-belt G against the axle, upon which, by reason of its having a motion in the opposite direction, it has a rapid and powerful cutting and smoothing action. A slight pressure in either direction causes the emery-belt G to shift its position on the drum E, and moves it from point to point on the axle being polished. I have found by using this device a great saving in time, and have polished and smoothed axles even better than by the old way, and at much less cost.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a polishing device, the emery-belt G, suspended on and moved by the drum E, and provided with a handle, H, having a loose pulley, I.

2. As a polishing device, the combination, with a lathe, A, of an emery-belt, G, actuated by the drum E, and provided with a handle, H, all substantially as shown and described.

3. In a polishing device substantially as shown and described, the handle H, provided with a loose pulley, I, handles J J, and projection K.

In testimony of which invention I hereunto set my hand.

JOHN N. SPENCER.

Witnesses:

REED DE HORSEY,
CADY. ANFENGER.