

H. L. PEIRCE.

Improvement in Spindle Bearings for Spinning Machines.

No. 123,358.

Patented Feb. 6, 1872.

Fig. 1.

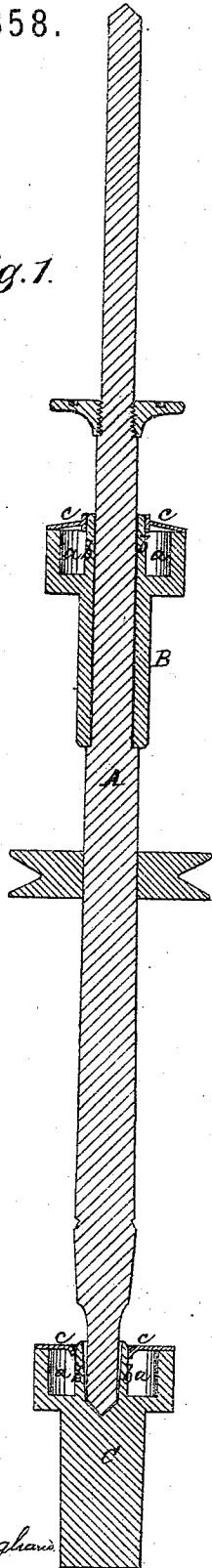
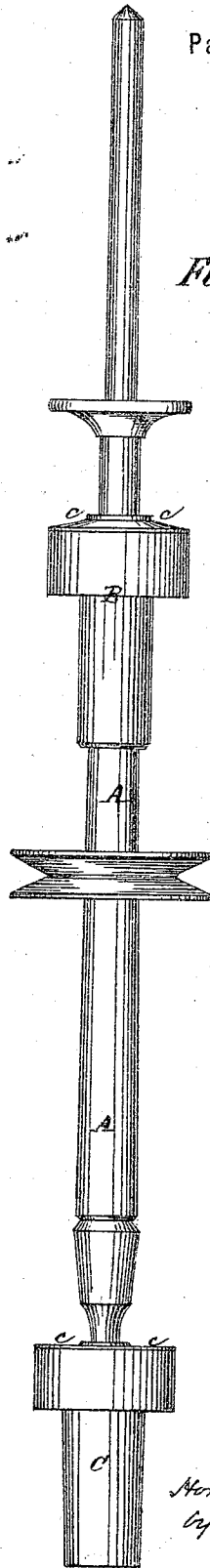


Fig. 2.



Witnesses:

Frederick A. J. A. J.
Charles P. Nottingham

Inventor:

Horatio L. Peirce
by attorney
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UNITED STATES PATENT OFFICE.

HORATIO L. PEIRCE, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO GEO.
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IMPROVEMENT IN SPINDLE-BEARINGS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. 123,358, dated February 6, 1872.

To whom it may concern:

Be it known that I, HORATIO L. PEIRCE, of Taunton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Spindle-Steps and Bolsters and Bearing-Boxes, of which the following is a specification:

My invention relates and is especially applicable to the bolsters, steps, and bearing-boxes of spindles in spinning machinery.

I construct them of wood, with the fiber or grain parallel with the axis of the spindle, and not transverse thereto, as is ordinarily the case, thus avoiding creasing or burring the spindle, and the wear and deterioration of wood which ensue from the latter construction; and I form in them cups for the oil or lubricating material, which is held therein from contact with the spindle, and can only have access to said spindle by filtering or slowly passing through the pores of the wood, this passage of the lubricant to the spindle being slower and better regulated than it would be were the fibers transverse; and, finally, I coat the exterior of the bolsters, steps, and bearings with shellac or other varnish insoluble in oil.

In the accompanying drawing I have represented, in illustration of my invention, a spindle provided with a step and a bolster made in accordance with my invention.

Figure 1 is a longitudinal central section, and Fig. 2 is an elevation of the same.

A represents the spindle, of usual construction. B is the bolster, made of wood, with the fibers or grain parallel with the axis of the spindle. The oil-cup is formed by a groove, *a*, of suitable width and depth in the top of the bolster, so made as to leave an annular wall, *b*, of wood between the spindle and the oil contained in the cup. The cup is closed by a cover, *c*, which can be removed whenever the supply of oil requires to be replenished. The effect of having the fibers of the wood parallel

with the axis of the spindle has been above mentioned. The lubrication of the spindle is secured by the slow passage of the oil through the pores of the wood, which oil is given to the spindle as it is needed, and the rapid rotation of the spindle, which in a measure has the effect of sucking the oil through or away from the wood, insures the proper action of the lubricator. The construction of the bolster and the manner in which it is applied to the spindle will be readily understood by reference to the drawing. The spindle-step is represented at C. It, like the bolster, is constructed with fibers parallel with the axis of the spindle, and with an oil-cup, *a*, in its top, separated from the spindle by the wooden wall *b*, and closed by a removable cover, *c*.

Although lubrication is provided for, yet the oil while in the cups is kept clean and free from impurities, as the wall *b* keeps it from contact with the spindle.

When thus made the steps and bolsters are very cheap and durable. As above stated, they should be coated upon the exterior with shellac or other varnish insoluble in oil.

From the foregoing, those skilled in the art will readily understand how the spindle bearing-boxes may be constructed upon a similar plan. They will, of course, be made with cups in the same way and to secure the same end.

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

As a new manufacture, wooden steps and bolsters for the spindles of spinning machinery, made substantially as herein shown and described.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

HORATIO L. PEIRCE.

Witnesses:

N. D. ARNOLD,
J. H. FOLLETTE.