

J. WHITE.
Spindles and their Bearings.

No. 197,579.

Patented Nov. 27, 1877.

Fig. 1.

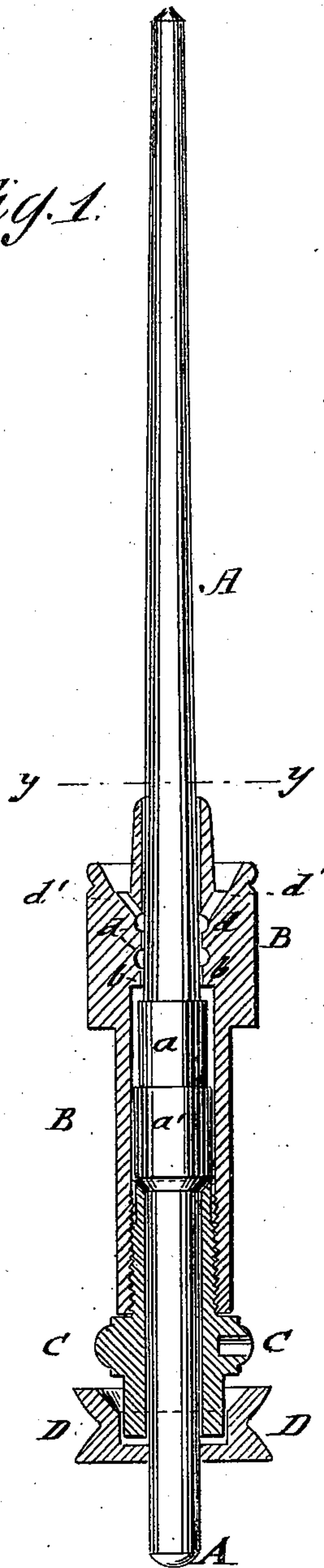
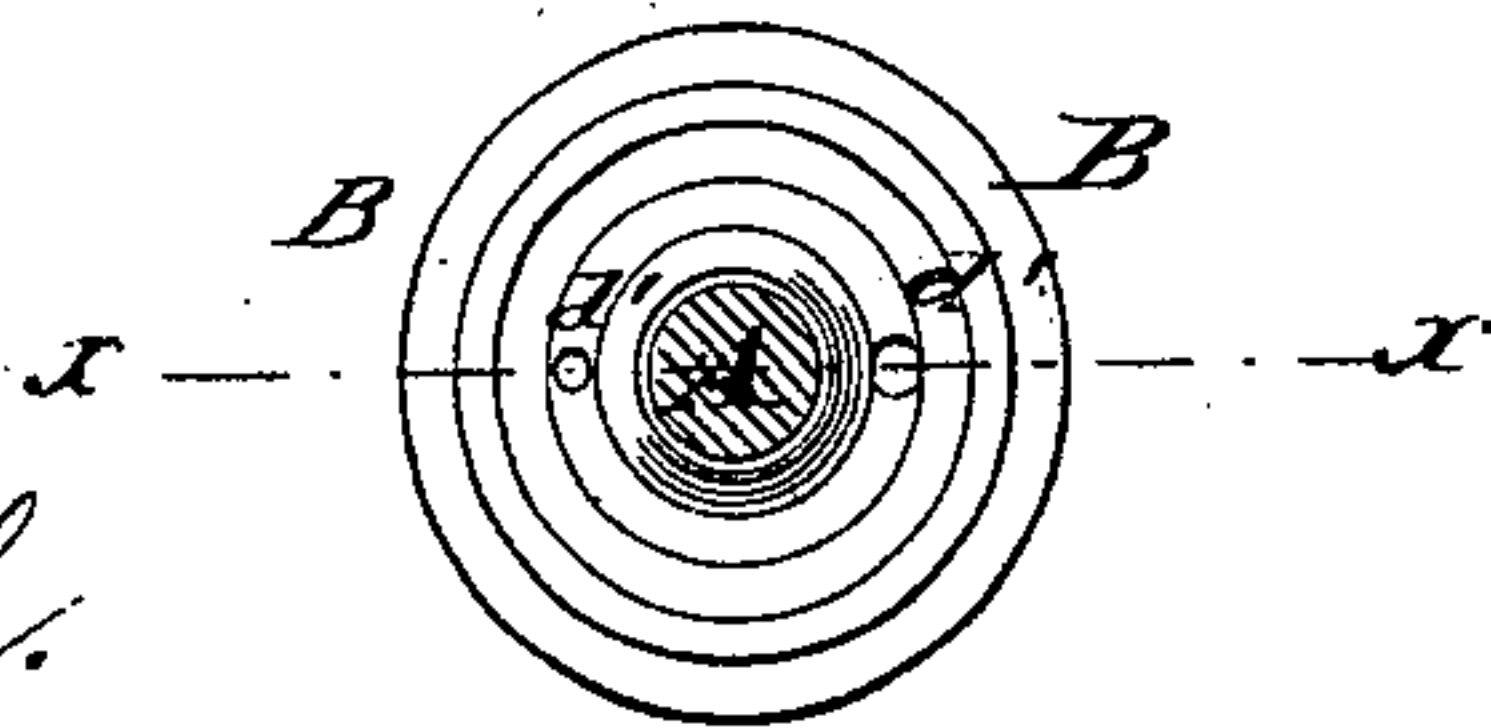


Fig. 2.



WITNESSES:

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IMPROVEMENT IN SPINDLES AND THEIR BEARINGS.

Specification forming part of Letters Patent No. **197,579**, dated November 27, 1877; application filed May 12, 1877.

To all whom it may concern:

Be it known that I, JAMES WHITE, of North Adams, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Spindles and their Bearings; of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical central section of my improved spindle on line *x x*, Fig. 2; and Fig. 2, a horizontal section of the same on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide for spinning-machines an improved spindle, that runs in light and easy manner, is of simple and durable construction, and keeps continually in lubrication, so as to prevent its wearing out and getting useless.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the drawing, A represents the spindle, and B the upper bearing and C the lower bearing of the outer incircling case or box, by which the parts are attached to the spinning-machine.

The lower bearing C is screwed into the upper bearing B, which rests on a shoulder, *a*, of the spindle by a top collar, *b*. The spindle is provided below the upper shoulder *a*

with a second shoulder, *a'*, between which and the collar of the upper bearing B a small annular oil chamber or reservoir is formed, which surrounds the shoulder *a*.

The lower bearing C extends into a cup-shaped support, D, that takes up any surplus oil running down along the spindle, so as to prevent any loss of oil.

The upper bearing B is provided with two or more annular recesses, *d*, and communicating holes, that open into the cup-shaped top part of the bearing part to conduct the oil down along the spindle into the chamber or reservoir around the shoulder *a*, and supply from the same to the lower part.

The spindle and its parts all form one piece, and are affixed to the bolster-rail in the usual manner; or the spindle may also be extended below the whir and be used with a step and step-rail.

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

A spindle having a collar or shoulder resting on the lower bearing of the surrounding box, and acting as a valve or stop to prevent the oil from flowing down along the spindle, substantially as set forth.

JAMES WHITE.

Witnesses:

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JAS. E. HUNTER.