

W. L. YOUNGMAN.

Improvement in Bobbin-Holders for Spinning-Machines.

No. 130,966.

Patented Aug. 27, 1872.

Fig 1

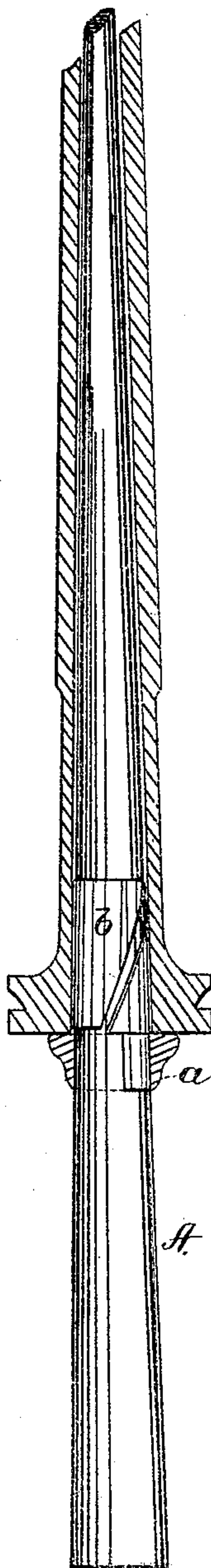
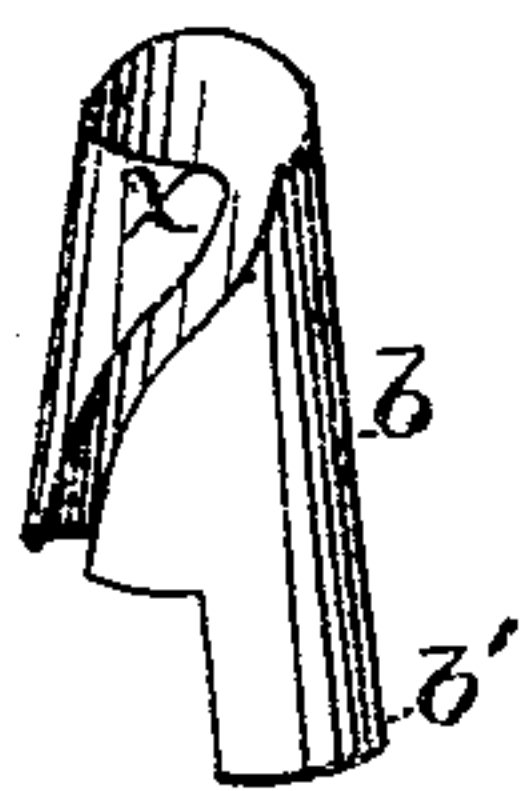


Fig 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM L. YOUNGMAN, OF WILLIAMSPORT, PENNSYLVANIA.

IMPROVEMENT IN BOBBIN-HOLDERS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. 130,966, dated August 27, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, WILLIAM L. YOUNGMAN, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Attachment for Spindles; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to that class of spindles which are provided with a spring for holding the bobbin in place; and consists in the peculiar construction of the spring, whereby it is adapted to prevent the bobbin from rising from its place, or from revolving on the spindle, as will be fully described hereinafter.

In the drawing, Figure 1 represents an elevation of my improved spindle, with the bobbin shown in section; and Fig. 2 represents a perspective view of the spring.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents the spindle, constructed, generally, of any proper form, which is provided, at a suitable point, with the ferrule *a*, as shown. *b* represents the spring, formed of a suitable piece of metal, so cut and bent as to take the form of a cylinder, having a spiral opening or slot upon one side. In addition to this general form given to it, it is made slightly tapering, and is secured in place by means of a tongue, *b'*, which is clasped by the ferrule.

When it is desired to use my invention, the bobbin is slipped over the spindle until its base is brought against the ferrule. In this position it is securely held against accidental displacement by means of the spring *b*. By

means of the tapering form of this spring and its spiral edges the bobbin is easily brought to its position, and, when in place, the spiral edges serve to hold it against accidental displacement.

The bobbin is brought into position by giving it a slight twisting or turning movement on the spindle as it is brought down to its place, this turning movement being in the proper direction to press on the free end of the spring. When in place, it is held from rising vertically by the spiral edges, which bear against the circumference of the bobbin with more or less force, according to the power of the spring and the size of the hole; and it is also prevented from improperly turning on the spindle, because such movement causes the free edge of the spring to move outward and embed itself in the wood of the bobbin. When it is desired to remove the bobbin, however, a slight twist in the proper direction, as it is lifted, will cause it to press in the free end of the spring, so that its pressure is relaxed. The spring, by means of its peculiar construction, is also adapted to yield sufficiently to permit, within certain limits, the employment of bobbins with different sizes of holes.

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

The spring *b*, provided with spiral edges, as described, in combination with the ferrule *a* and spindle A, as set forth.

This specification signed and witnessed this 11th day of June, 1872.

WILLIAM L. YOUNGMAN.

Witnesses:

C. D. BREWER,

JNO. F. STEVENSON.