

(No Model.)

E. W. THOMAS.

SPINDLE AND BOBBIN SUPPORT THEREFOR FOR SPINNING MACHINES.

No. 346,135.

Patented July 27, 1886.

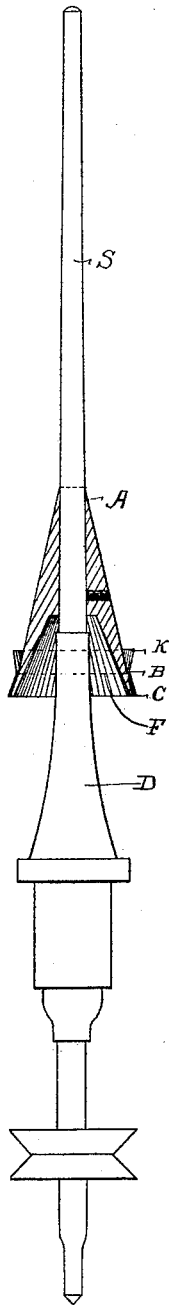


Fig. 1.

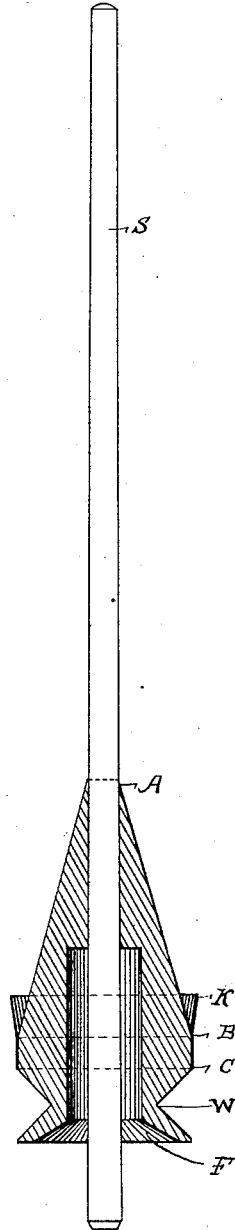


Fig. 2.

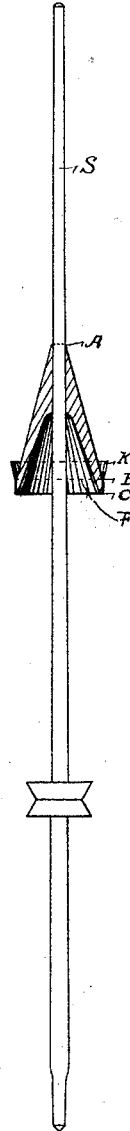


Fig. 3.

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EDWARD W. THOMAS, OF LOWELL, MASSACHUSETTS.

SPINDLE AND BOBBIN-SUPPORT THEREFOR FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 346,135, dated July 27, 1886.

Application filed June 19, 1885. Serial No. 169,159. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. THOMAS, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Spindles and Bobbin-Supports therefor for Spinning-Machines, of which the following is a specification.

My invention relates to that class of spinning machinery where the yarn is laid upon the bobbin or spindle in such a way as to enable the yarn of the completed bobbin or cop to be freely drawn off its end or "nose," or in other words, where the bobbin or cop is formed by what is known as the "filling-wind," as distinguished from the "warp-wind."

The object of my invention is to provide means of certainly driving a very thin filling-bobbin, and this object is accomplished by the use of the spindle illustrated in the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of a spindle, bolster, and a bobbin-holder attached to the spindle. Fig. 2 is an elevation, partly in section, of a spindle with a bobbin-holder attached, showing the whirl and a chamber in the base of the bobbin-holder, into which the bolster which supports the spindle projects when the spindle is in use. Fig. 3 is an elevation, partly in section, of a third spindle, showing the manner in which the bobbin-holder is usually attached to a mule-spindle.

Similar letters of reference refer to similar parts throughout the several views.

The improved spindle is made by fixing the bobbin-holder A B C to the spindle S, and making the upper surface of the bobbin-holder of a shape which is substantially like that of the nose of a cop, and fixing to the lower part of the said bobbin-holder the thin cup K, into which the lower edge of the thin filling-bobbin, which is used with this form of spindle, may be forced and wedged. By this means the said bobbin is held accurately and with great firmness upon the spindle.

The bobbin-holder A B C will be made differently at its base when it is applied to different kinds of spindles. It may be chambered out at its base, as shown at F in the drawings, in which case it may project below the top of the bolster when desirable, as it is with the

spindle shown in Fig. 1, where the bobbin-holder should be as low upon the spindle as possible, surrounding the top of the bolster D, as shown. It is also desirable in the case of the kind of spindle shown in Fig. 2 that the bolster which is used therewith should extend up within the chambered-out portion F.

With the kind of spindle shown in Fig. 3 the bobbin-holder is preferably chambered out at its base, in order to make it as light as possible, although this is not usually absolutely necessary, since the bolster upon this spindle is usually entirely below the bottom of the bobbin-holder. The bobbin-holder sometimes carries at its base the whirl W, which rotates the spindle, as is shown in Fig. 2, and it may be manufactured in any suitable and convenient manner of any suitable material.

By making the spindle in the form illustrated I am enabled to use a much thinner bobbin than has usually been used for this purpose, since the cop-nose-shaped upper part of the bobbin-holder effectually supports the base of the bobbin, which is also firmly wedged to the spindle concentrically therewith by the thin cup K.

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

1. A spindle for spinning yarn and a means of rotating the same, combined with a bobbin-support fixed to the said spindle, a part of the upper surface of which is shaped substantially like the nose of a cop, and which is provided with the thin cup K, attached to the lower portion of the said cop-nose-shaped surface, substantially as described, and for the purposes set forth.

2. A spindle for spinning yarn and a means of rotating the same, combined with a bolster for supporting the said spindle, a bobbin-support fixed to the said spindle, a part of the upper surface of which is shaped substantially like the nose of a cop, and which is provided with a chamber on its under side, into which the said bolster projects, and the thin cup K, attached to the lower portion of the said cop-nose-shaped surface, substantially as described, and for the purpose set forth.

3. A spindle for spinning yarn, combined with a bobbin-support fixed to the said spindle, a part of the upper surface of which is

shaped substantially like the nose of a cop, and is provided with a whirl at its base, by which the said spindle may be rotated, a thin cup, K, attached to the base of the said cop-nose-shaped surface above the said whirl, and a chamber extending up into the base of the said bobbin-support, substantially as described, and for the purposes set forth.

4. A spindle for spinning yarn and means of supporting and rotating the same, combined with a bobbin-support which is fixed to the said

spindle, and a part of whose upper surface is shaped substantially like the nose of a cop, and which is chambered out at its base, and a thin cup, K, attached to the base of the said cop-nose-shaped surface, substantially as described, and for the purposes specified.

EDWARD W. THOMAS.

Witnesses:

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CHARLES H. FISHER.