J Goulding.

Bobbin Holder.

No. 50,240. Patented Oct. 3, 1865.

Fig. 1

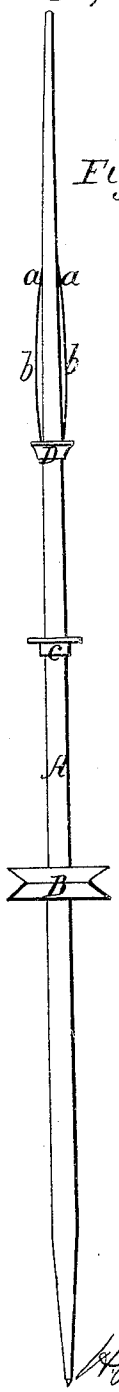
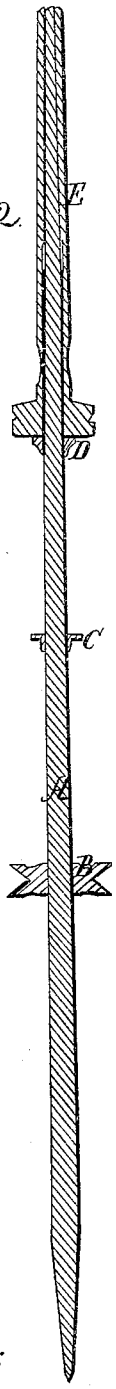


Fig. 2.



Witnesses;

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UNITED STATES PATENT OFFICE.

JOHN GOULDING, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN BOBBIN-HOLDERS FOR SPINNING.

Specification forming part of Letters Patent No. **50,240**, dated October 3, 1865.

To all whom it may concern:

Be it known that I, JOHN GOULDING, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Bobbin-Holders; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a spindle with my bobbin-holder applied thereto; and Fig. 2 represents a longitudinal central section of a spindle, bobbin-holder, and bobbin.

In the drawings, A represents the spindle; B, the whirl around which the band runs to turn the spindle; C, a guide or stop to act in connection with the bolster or upper bearing of the spindle. D is a base or ring piece, which in this instance is made to answer a twofold purpose—viz., a bottom support for the bobbin E and a fastener for the bobbin-holding springs *a a*.

The springs *a a* are made with a swell, *b*, near their centers, so that when they are applied to the spindle they assume the form shown in Fig. 1.

To prevent the bobbin from wabbling the springs should be so arranged as to hold the bobbin with equal pressure on all the sides. To this effect I prefer to place the springs symmetrically or equidistantly from each other.

As the point of the spindle is made tapering the springs *a a* are fastened to the spindle in a simple yet effective manner. The lower ends of the springs *a a* are stamped in the proper form, and are placed within the ring D, and the latter is then slipped down over the spindle until it reaches the desired point, when it binds upon the spindle, and a slight blow is sufficient to fasten the ring D and springs *a a* in a secure position, as indicated in the drawings. When the bobbin E is pressed down upon the rest or seat D it compresses the springs *a a*, as indicated in Fig. 2, and so long as the bobbin remains in this position it is held from turning upon the spindle by the springs *a a*, and yet, when desired, the bobbin can be readily removed.

The old method of securing the bobbin to the spindle consisted in winding yarn upon the spindle and then driving the bobbin down over the yarn. This mode, besides being expensive, resulted in damage to the bobbins and spindles. The bobbins were often split, while the spindles were as often bent, especially in the operation of removing the bobbin, which had to be pulled or knocked off, both operations requiring much force.

To obviate the above objections, bobbins have been made with linings of india-rubber, which have been used to some extent; but there are serious objections to making bobbins in this way, since it requires considerable labor and expense to fit the bobbins with rubber linings, while the oil used to lubricate the spindle is very liable to impair the rubber.

All of the above objections are entirely obviated by my invention. It is simple, durable, and can be applied readily to the spindles now in use. One spring, *a*, could be made to answer the purpose, but I prefer two.

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

The device herein described for holding bobbins upon spindles, the same consisting of two or more centrally-bulging springs, secured, as described and shown, into a seat or base fitting the spindle.

JOHN GOULDING.

Witnesses:
H. L. FULLER,
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