# L. Ferguson.

## Bobbin.

No. 54,465. Patented May 1, 1866.

Fig. 1.

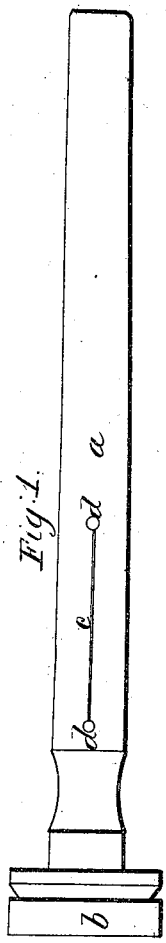



Fig. 2.

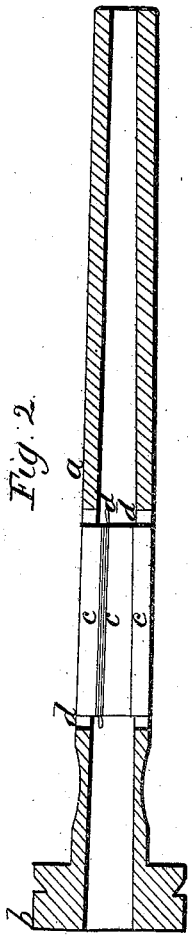
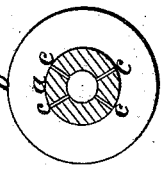



Fig. 3.




Witnesses;

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# UNITED STATES PATENT OFFICE.

LEVI FERGUSON, OF LOWELL, ASSIGNOR TO HIMSELF AND D. M. WESTON, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN BOBBINS FOR SPINNING, &c.

Specification forming part of Letters Patent No. **54,465**, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, LEVI FERGUSON, of Lowell, in the county of Middlesex and State of Massachusetts, have made a new and useful Improvement in Bobbins; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a side view, and Fig. 2 a longitudinal section, of a bobbin provided with my invention.

The purpose of the said improvement is to cause the bobbin to fit closely to the spindle and prevent the bobbin from sticking thereon at or near the base of such bobbin.

In carrying out my invention I provide the bobbin with four or any other suitable number of slits, running lengthwise of it, and commencing a short distance above its base and extending upward two inches (more or less) in the shank or body, the diameter of the bore of the bobbin where the said slits are made in it being somewhat less than that of that portion of the spindle to be encompassed by such part. The diameter of the bore of the bobbin, at or near the upper end of such bore, is equal to that of the spindle where surrounded by such upper part of the bobbin.

In the drawings, *a* is the shank or body, and *b* the head of the bobbin.

*c c c c* are the slits, their arrangement being more particularly represented in Fig. 3, which is a cross-section of the bobbin, such section being taken through the slits. These slits enable the part of the bobbin in which they are made to spring out and in more or less, so as to cause it to fit closely to the spindle. In order to prevent each slit from extending it may terminate at each end in a round hole, as shown at *d*.

The advantages of my improvement are that it requires no change in the ordinary spindle to adapt it thereto. Almost any kind of bobbin may be fitted with it. It costs little to apply it, and the bobbin so made is stronger or less liable to derangement than when constructed with slits extending through its head and provided with an elastic ring, arranged in a groove in such head.

My improvement precludes all necessity of slitting the bobbin, whereby it is rendered weak and liable to be broken, especially when stepped upon or the bobbin by accident may be dropped or fall upon an object.

I do not claim a spool or bobbin provided with a friction apparatus to hold it to the spindle; nor do I claim a bobbin with slits to extend entirely through its head at its base and to have an encircling expansion-ring applied to such head, such ring being liable to become lost or deranged while the bobbin may be in use.

What I claim as my improvement is—

The arrangement of the slit or slits entirely in the shank or body and above the head of the bobbin, substantially as described.

LEVI FERGUSON.

Witnesses:

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