J. B. BANCROFT.

YARN SPOOLING MACHINERY.

No. 180,105. Patented July 25, 1876.

Fig. 1.

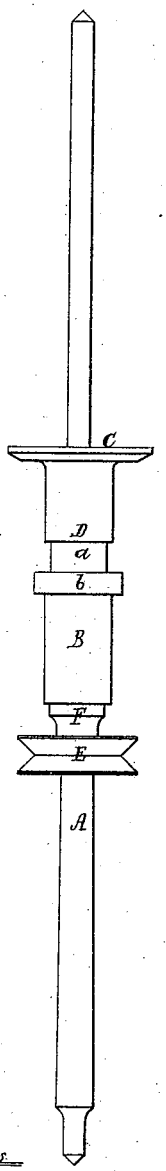


Fig. 2.

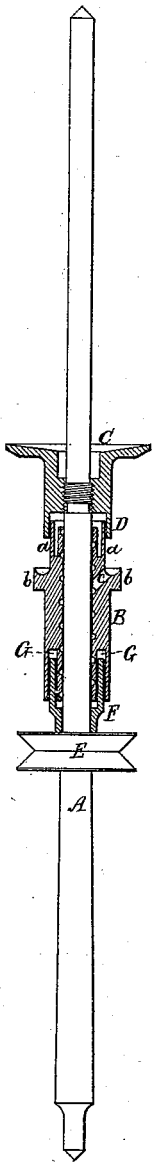
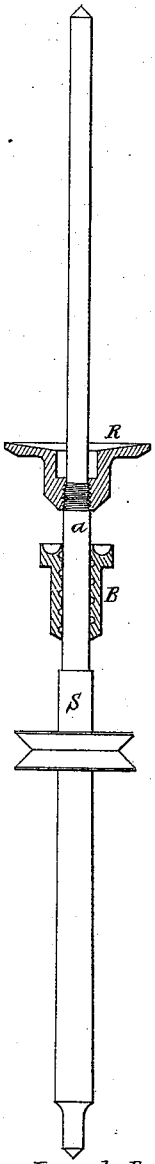


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH B. BANCROFT, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN YARN-SPOOLING MACHINERY.

Specification forming part of Letters Patent No. **180,105**, dated July 25, 1876; application filed February 21, 1876.

To all whom it may concern:

Be it known that I, JOSEPH B. BANCROFT, of Hopedale, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Machinery for Spooling Yarn; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a front elevation, and Fig. 2 a vertical section, of a spooling-machine spindle, its bolster, and bobbin-rest, provided with my invention. Fig. 3 is a vertical section of such a spindle, bolster, and bobbin-rest as heretofore in general use.

By inspection of the latter figure it will be observed that there is between the bolster B and the bobbin-rest R a portion, *a*, of the spindle S which is uncovered, and also that there is no cover to the bolster or its spindle-supporting bearing. Under such circumstances waste is apt to accumulate on and become wound upon the exposed part *a*, and work down into the bolster, and thereby impede the operations of the spindle. To avoid or prevent such is one object of my improvement.

In carrying out my said invention I combine with the spooling-machine spindle A, its bolster B, and a bobbin-rest, C, separate from the whirl, a sleeve, D, to encompass the spindle and extend down from the said rest to the bolster; or I construct the bolster with a cylindrical extension, *a*, to project above the oil-trough *b*, and I provide the bobbin-rest C with a cylindrical sleeve, D, to extend down from it, to and around the extension *a*, in manner as represented in the drawings.

By such means all that part of the spindle which is between the bolster and the bobbin-rest, as well as the spindle-bearing or bore of the bolster, will be covered, and thereby be protected from waste, the sleeve revolving with the spindle and the bobbin-rest, while they may be in operation. Furthermore, the spindle is provided, just above its whirl E, with a cylindrical cup, F, that encompasses it, and extends upward within an annular or circular space, G, made within the bolster, and upward from its foot, from which it will be seen that the bolster not only extends down within the oil-cup, but also down around it.

The bore of the bolster is, or may be, grooved helically from top to bottom, and there is from the oil-trough into the bore of the bolster a passage or duct, *c*, to convey oil from the trough into the bearing.

The cup F and the annular space G serve to prevent loss of oil from the bolster, and they also prevent waste or filaments from working up the spindle and into the bolster-bearing at its foot.

By means of the sleeve D, or such, and the extension *a* and the cup F, arranged with and applied to the spindle, the bolster, and the bobbin-rest, in manner as represented, the bore or bearing of the bolster is protected from dust and fibrous waste, and so is that part of the spindle which is between the bolster and the bobbin-rest.

I am aware that the bolster of a ring or a throstle-spindle has been extended down into a cup fixed to the spindle, and also that while so extended the bolster has been made to encompass the cup. Therefore, I do not claim such irrespective of a sleeve extended down from a bobbin-rest to or around a bolster, and the part of the spindle between the said bolster and rest.

When the sleeve is so used it indirectly protects the cup from waste or dust that otherwise might work down through the bolster and into the cup.

I claim as my invention as follows—that is to say:

1. The bobbin-supporter C separate from the whirl E, and arranged with it on the live-spindle A, and provided with the sleeve D, all as set forth, in combination with the bolster B, arranged between the said whirl and bobbin-supporter, and furnished with the oil-trough *b*, and with the neck *a* extended above the said oil-trough *b*, and within the sleeve D, all being substantially as shown and described.

2. The spooling-machine, live-spindle A, the oil-cup F, and the whirl E and separate bobbin-supporter C, arranged with and fixed to the said spindle, as represented, in combination with the bolster B, having the oil-trough *b*, and arranged between the said whirl and bobbin-supporter, and extended up within the latter, and provided with an annular chamber, G, to receive the cup F, all being essentially as shown and described.

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