

(No Model.)

E. & J. MACDUFF.
BOBBIN HOLDER FOR SPINDLES.

No. 495,818.

Patented Apr. 18, 1893.

Fig. 1.

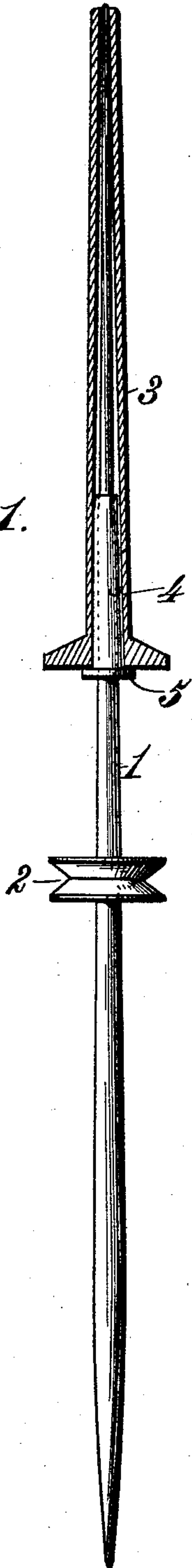
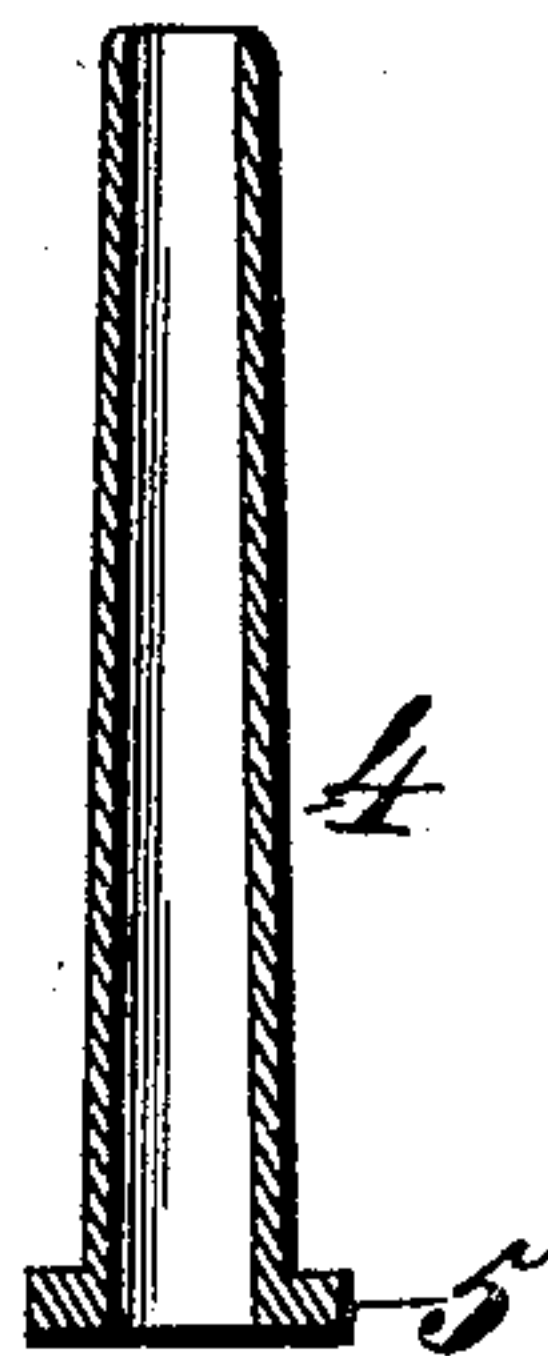


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWARD MACDUFF AND JOHN MACDUFF, OF COHOES, NEW YORK.

BOBBIN-HOLDER FOR SPINDLES.

SPECIFICATION forming part of Letters Patent No. 495,818, dated April 18, 1893.

Application filed June 20, 1892. Serial No. 437,318. (No model.)

To all whom it may concern:

Be it known that we, EDWARD MACDUFF and JOHN MACDUFF, citizens of the United States, residing at Cohoes, in the county of Albany and State of New York, have invented new and useful Improvements in Bobbin-Holders for Spindles, of which the following is a specification.

This invention has for its object to provide new and improved bobbin holders for spindles, which are efficient in use and of a simple construction, whereby they can be economically manufactured, while they possess such characteristics that they hold the bobbin and are driven by frictional contact with the spindles.

The invention consists in the combination with a tapering spindle, of an elastic rubber bobbin-holding-sleeve fitting the spindle and having a lateral collar at its lower end, so that the sleeve constitutes a packing on which the bobbin may be placed and securely held without the use of extraneous devices for this purpose.

The invention is illustrated by the accompanying drawings, in which—

Figure 1, is a side elevation of a spindle provided with my improved bobbin holder, the bobbin being shown in section, and Fig. 2, is a detail longitudinal sectional view of the bobbin-holder.

In the drawings the numeral 1 indicates a tapering spindle, 2 the whirl and 3 the bobbin which must be capable of being removed and replaced so that when supplied with the required quantity of yarn, it can be removed from the spindle and an empty bobbin placed thereupon. To accomplish this without injury to the bobbin, and to avoid the use of yarn, metallic springs and wedges, as a packing medium for holding the bobbin and causing it to revolve with the spindle, I provide an improved holder which is composed of a sleeve 4, made of elastic rubber and adapted to fit the tapering spindle and be rotated by frictional contact therewith. The sleeve is formed integral at one end with an annular collar 5 and from such collar to the opposite

end, the sleeve is of tapering form so that a bobbin can be forced thereupon and caused to revolve by frictional contact therewith. The bobbin is formed with a tapering bore corresponding with the tapering external surface of the sleeve and the annular collar limits the downward motion of the bobbin when placing the latter in position on the sleeve. By forming the bobbin-holder as a sleeve of elastic rubber, it closely hugs the tapering spindle and is positively rotated by frictional contact therewith, while the elastic nature of the sleeve renders it possible to rapidly remove and replace the bobbins without danger of injuring the same since the ends which fit the sleeves do not meet metallic or hard surfaces which is liable to damage the ends of the bobbins in frequently removing and replacing the same.

Having thus described our invention, what we claim is—

1. The combination with a tapering spindle, of an elastic rubber bobbin-holding-sleeve fitting the spindle and formed integral with a lateral collar at one end, so that the sleeve constitutes a packing on which the bobbin may be placed and securely held, substantially as and for the purposes described.

2. The combination with a tapering spindle, of an elastic rubber bobbin-holding-sleeve tapering internally and externally and formed integral with a lateral collar at its largest end, said sleeve fitting the spindle and constituting a packing on which a bobbin may be placed and securely held solely by friction, substantially as and for the purposes described.

In testimony whereof we have hereunto set our hands and affixed our seals in presence of two subscribing witnesses.

EDWARD MACDUFF. [L. S.]

JOHN ^{his} × MACDUFF. [L. S.]
mark

Witnesses:

WILLIAM MUPHY,
EDWARD CARDEN.