

B. Saunders. Bobbin

N^o 39,681.

Patented Aug. 25, 1863.

Fig. 1.

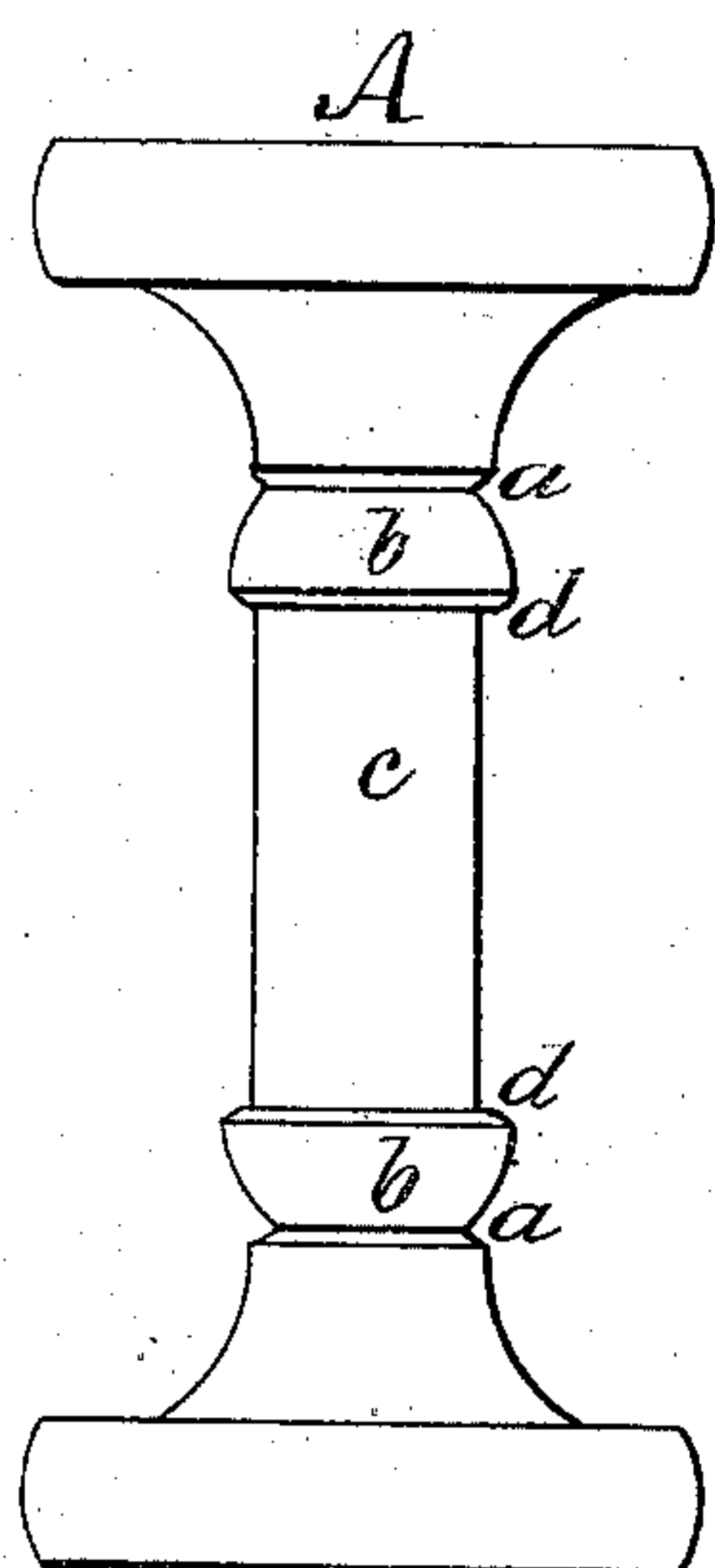


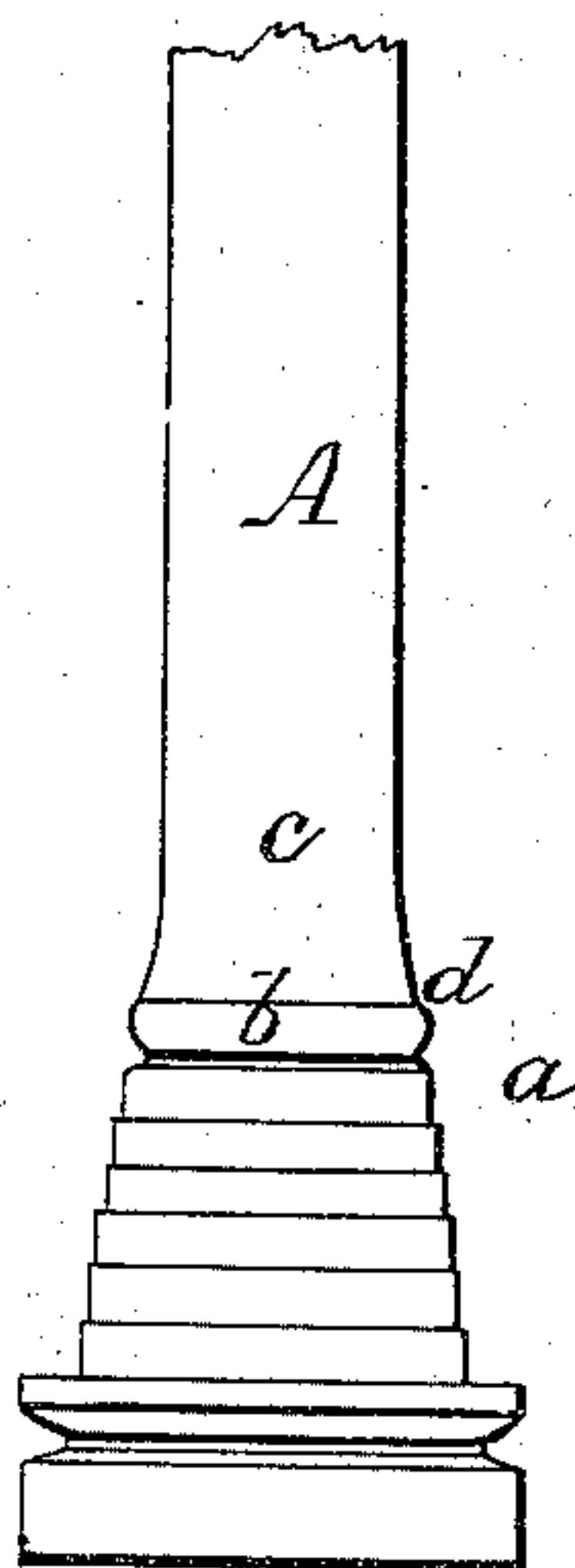
Fig. 3.



Fig. 4.



Fig. 2.



Witnesses.

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IMPROVEMENT IN BOBBINS OR SPOOLS.

Specification forming part of Letters Patent No. 39,681, dated August 25, 1863.

To all whom it may concern:

Be it known that I, BENJAMIN SAUNDERS, a resident of Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Improvement in Bobbins or Spools; 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 is a side view of a warp-bobbin, and Fig. 2 is a side view of a filling-bobbin or spool as provided with my invention, the principle of which is to be found in making the bobbin or spool either with an angular hitching-groove or with the same and a gage-guide, arranged in manner on the bobbin or spool as hereinafter described.

The object of the improvement is to save the waste which usually results from the ordinary mode of affixing the yarn to the bobbin during the process of "doffing" or applying such bobbin to the spinning-frame, such waste generally occurring in the process of warping, there being almost always a piece of yarn left entangled on the bobbin or spool. It is also liable to occur with the filling-bobbin or spool, it being difficult to draw all the yarn therefrom while the shuttle may be in movement over the race-beam of a loom.

In the drawings, A denotes the bobbin or spool. Within the neck or body *c* of it, and at the foot of the taper of each one of the heads, an angular or V-shaped groove, *a*, is made, and so as to extend entirely around the

body. This groove may have a form in transverse section, as shown in either Fig. 3 or Fig. 4, or it may be otherwise suitably formed. Against this groove is the gage-guide *b*, which is a tapering fillet going around the body and having a shoulder, *d*, where its larger base joins the body. This fillet has a taper toward the groove, as shown in the drawings. The gage-guide not only serves as a gage or stop for the forefinger and thumb of an operative to abut against, while the bobbin may be held in the left hand and the yarn may be in the act of being hitched to the bobbin, but it also operates under such circumstances to guide and direct the yarn into the angular hitching-groove.

To hitch the yarn to the bobbin preparatory to its being filled with yarn, we have only to wind the yarn quickly and closely into the angular groove, the friction of which on the yarn will suffice to produce the requisite connection. The yarn will readily unwind from the angular grooved bobbin and leave no waste thereon.

I claim—

The improved bobbin or spool as provided with or having combined with it either a yarn-hitching groove, *a*, or the same, and a gage-guide, *b*, the whole being substantially as and for the purpose described.

BENJN. SAUNDERS.

Witnesses:

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