

No. 766,725.

PATENTED AUG. 30, 1904.

V. BÉLANGER.
BOBBIN.

APPLICATION FILED MAY 20, 1902.

NO MODEL.

FIG. 2

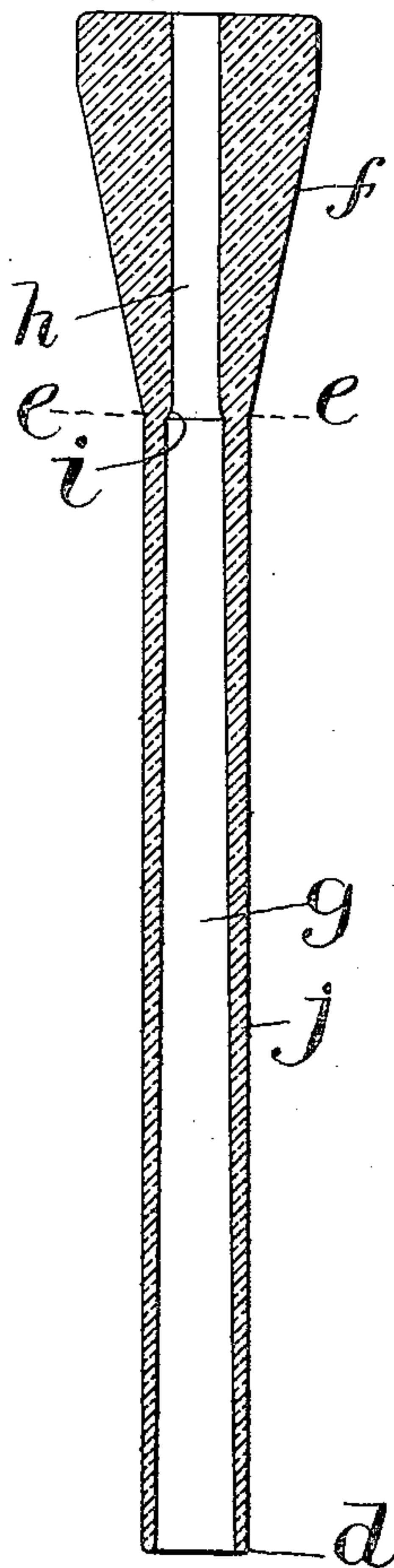


FIG. 3. FIG. 1.

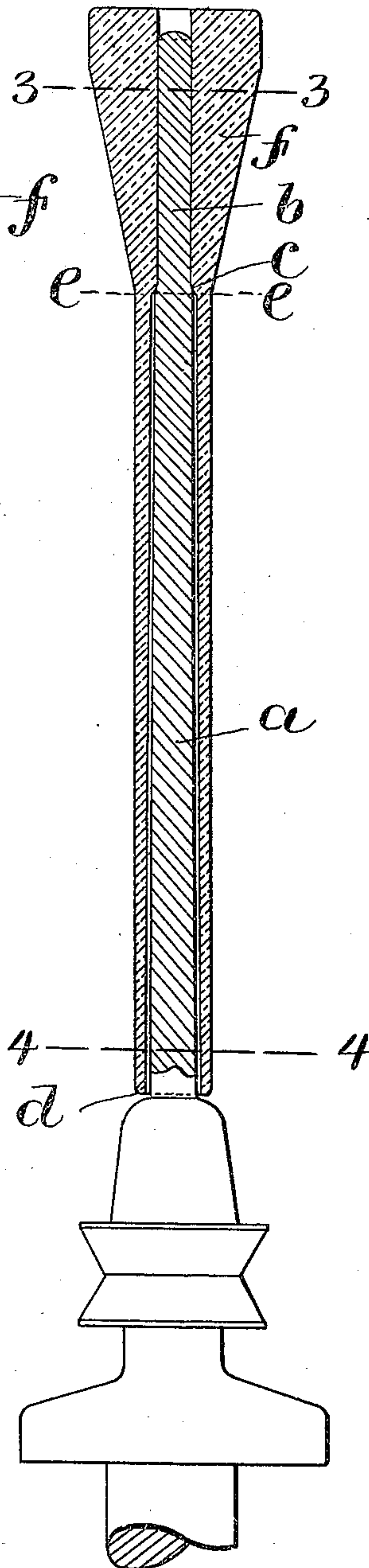
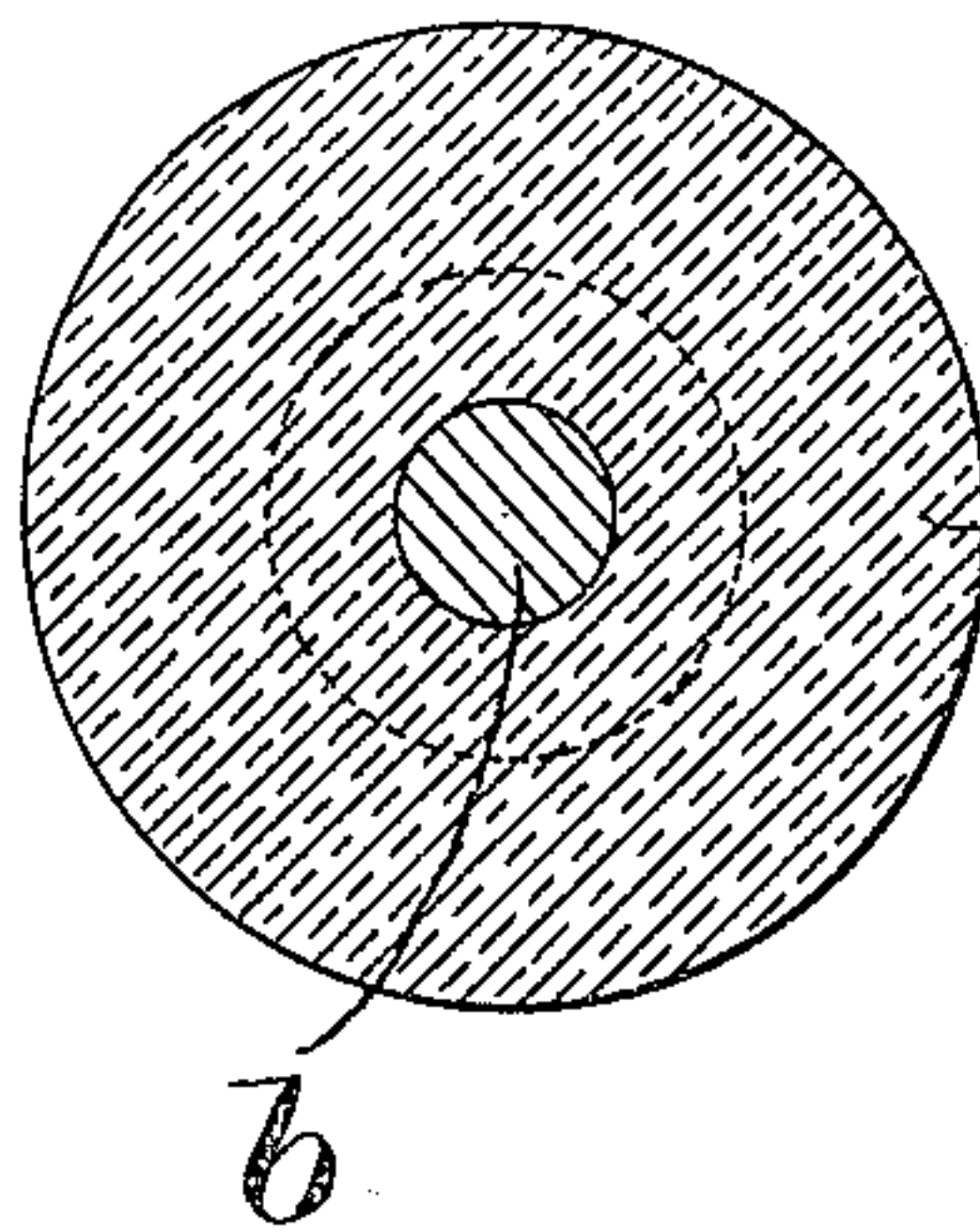
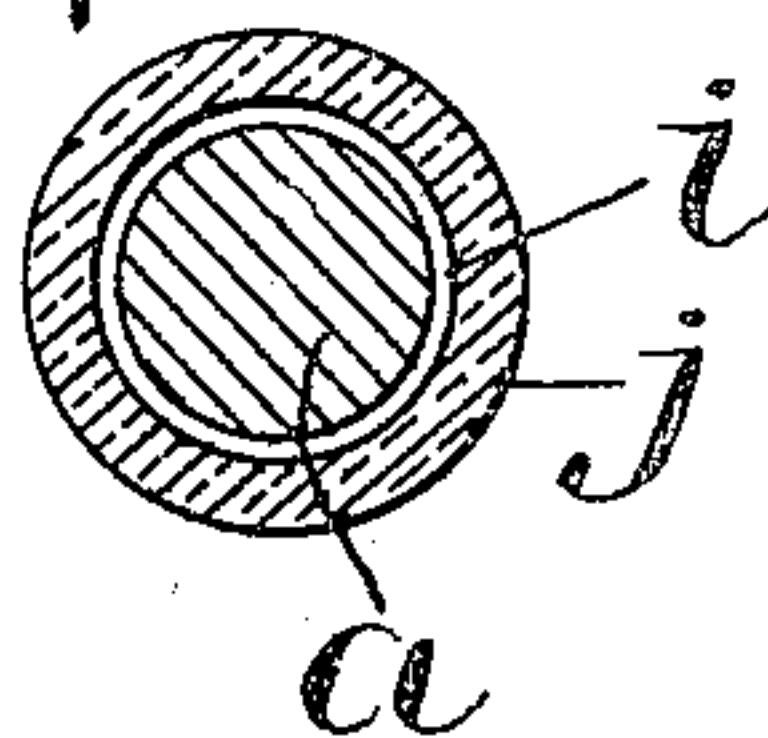


FIG. 4.



WITNESSES:

C. C. Stecher
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INVENTOR:

by Victor Bélanger
Wright Brown Quincy attys

UNITED STATES PATENT OFFICE.

VICTOR BÉLANGER, OF SEAVIEW, MASSACHUSETTS.

BOBBIN.

SPECIFICATION forming part of Letters Patent No. 768,725, dated August 30, 1904.

Application filed May 20, 1902. Serial No. 108,177. (No model.)

To all whom it may concern:

Be it known that I, VICTOR BÉLANGER, of Seaview, in the town of Marshfield, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Bobbins, of which the following is a specification.

This invention has relation to bobbins; and it has for its object the provision of a bobbin which may be employed in connection with ring-spinning mechanism by which the yarn may be built thereon in short courses, beginning at the top with the main traverse downward.

The invention has further for its object to provide improvements in bobbins whereby they will readily center themselves in rotation and effect an even strain on the yarn during the spinning or twisting operation.

On the accompanying drawings, Figure 1 represents in vertical section a spindle-blade, having my improved bobbin thereon. Fig. 2 represents the bobbin in section and shows it as detached from the spindle. Fig. 3 represents an enlarged section on the line 3 3 of Fig. 1. Fig. 4 represents an enlarged section on the line 4 4 of Fig. 1.

The bobbin is adapted to be employed in connection with a spindle having a tapering blade *a*. The upper end of the blade is cylindrical, as indicated at *b*, there being a shoulder *c* between the cylindrical portion and the tapering portion of the blade. The bobbin is preferably formed of wood, although other material may be employed in lieu thereof, if desired. The exterior of the bobbin from the end *d* to the line *e* is cylindrical, as shown at *j*. The top of the bobbin, however, is in the shape of an inverted frusto-cone, as at *f*. The bore *g* of the bobbin tapers from the end *d* to the line *e* and is then cylindrical, as at *h*, there being, however, an interior shoulder *i*, as shown in Fig. 2. The upper portion *h* of the bore of the bobbin is adapted to snugly fit the cylindrical end *b* of the spindle-blade and the shoulder *i* to fit or rest upon the shoulder *c* of the spindle. The portion of the bore of the bobbin indicated at *g*, however, is greater in diameter than the diameter of the spindle *a*,

so that there is a space *i* (see Fig. 4) left between the spindle and the interior of the bobbin between the end *d* and the line *e*, as shown in Fig. 1.

With this construction the bobbin is supported only at the top, and since the heavier portion is therefore at the top of the spindle it has a tendency when in rapid rotation to center itself and likewise center the end of the spindle, so as to move evenly and smoothly and prevent the jerking of the yarn as it passes to the bobbin from the traveler on the ring.

By providing the bobbin with the internal stop or shoulder *i* to rest upon the shoulder of the spindle it is possible to maintain all of the bobbins in the frame at the same relative distance from the yarn-guides through which the yarn passes from the drawing-rolls to the travelers on the rings.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

1. A bobbin substantially as described having an internal shoulder adapted to rest upon the shoulder at the upper end of a spindle and with its bore reduced to fit that portion of the spindle which is above the shoulder therein, the remainder of the bore of the bobbin being larger than the spindle and the bobbin being of a length so that said bobbin is supported only at its upper end.

2. A bobbin substantially as described having a cylindrical body portion and a top in the shape of an inverted frusto-cone, the bore of the bobbin being cylindrical at the upper end with a shoulder to fit upon the cylindrical end and shoulder of the spindle, and the remainder of the bore of the bobbin being larger than the said spindle.

In testimony whereof I have affixed my signature in presence of two witnesses.

VICTOR BÉLANGER.

Witnesses:

M. B. MAY,
C. C. STECHER.