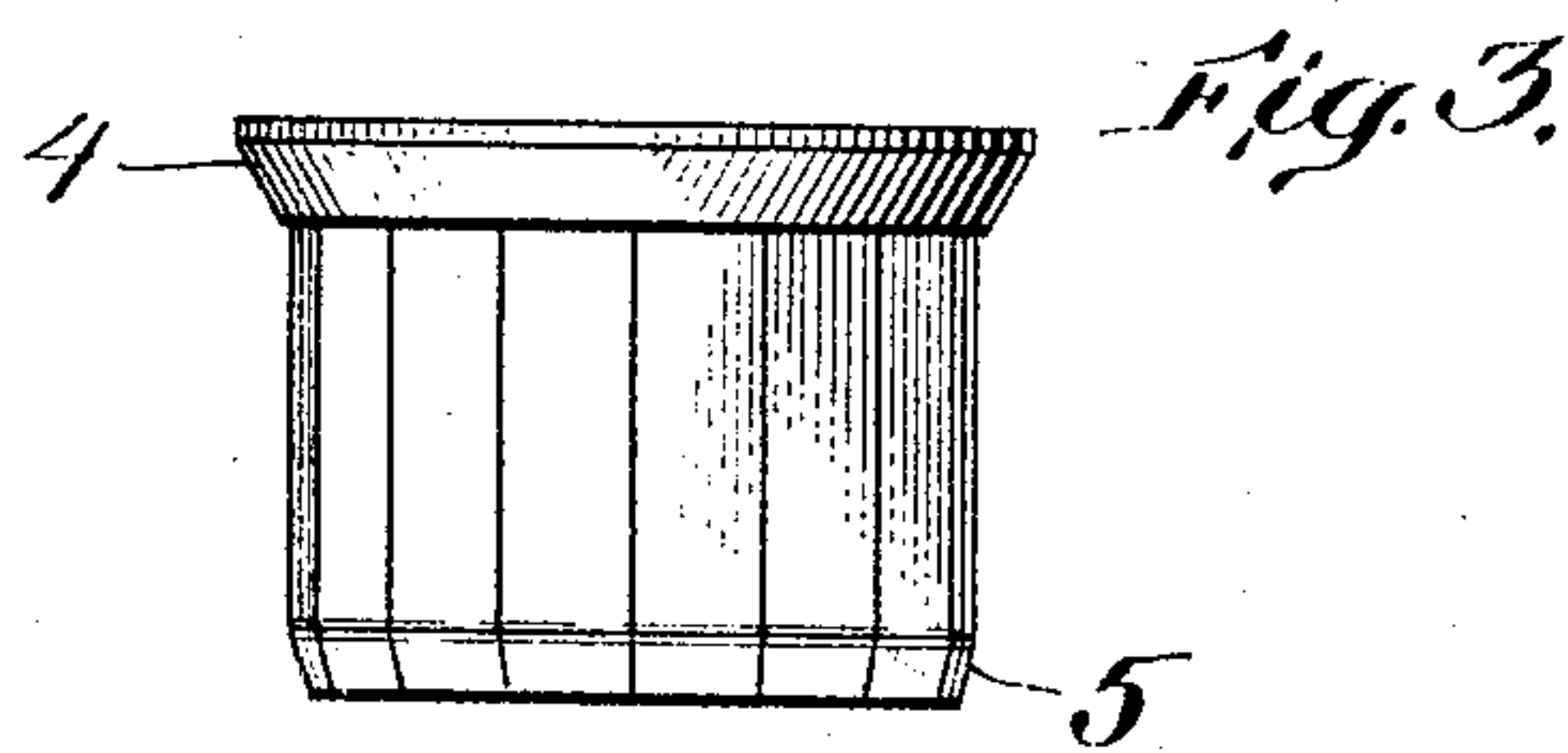
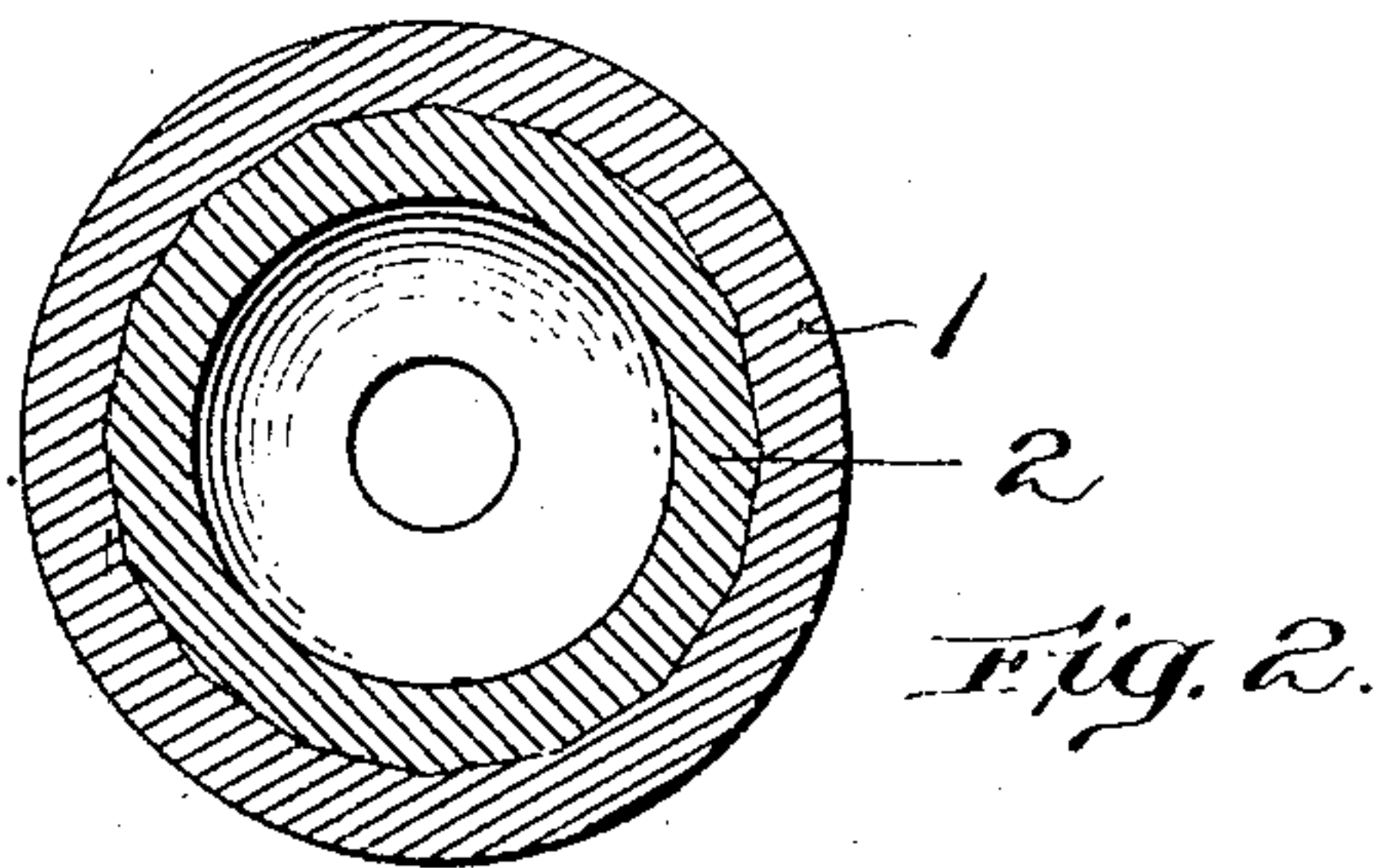
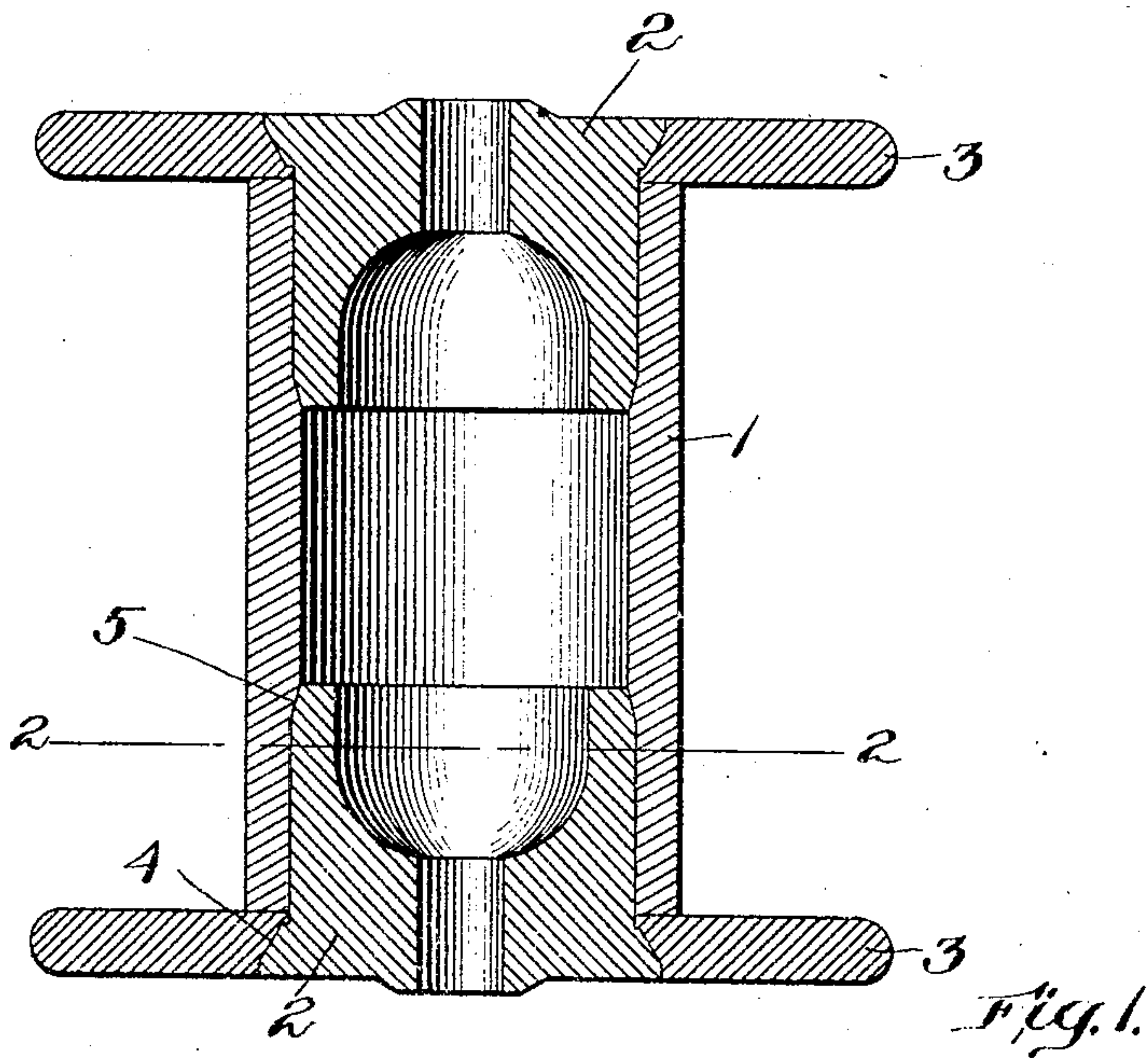


No. 774,734.

PATENTED NOV. 15, 1904.

W. E. BENNETT.  
SPOOL, BOBBIN, OR THE LIKE.  
APPLICATION FILED JAN. 7, 1904.

NO MODEL.



Witnesses:

Margaret J. Daniker.  
Mary M. Daniker.

Inventor:

Walter E. Bennett  
by Roberts & Mitchell  
Attorneys.



# UNITED STATES PATENT OFFICE.

WALTER E. BENNETT, OF PORTSMOUTH, NEW HAMPSHIRE, ASSIGNOR TO  
MORLEY BUTTON MANUFACTURING COMPANY, OF SACO, MAINE, A  
CORPORATION OF MAINE.

## SPOOL, BOBBIN, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 774,734, dated November 15, 1904.

Application filed January 7, 1904. Serial No. 188,089. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER E. BENNETT, a citizen of the United States, and a resident of Portsmouth, in the county of Rockingham and State of New Hampshire, have invented new and useful Improvements in Spools, Bobbins, or the Like, of which the following is a specification.

My invention relates to spools, bobbins, and the like, and has for its object to provide a strong spool or bobbin of simple construction.

Spools and bobbins of the class to which my invention relates have heretofore been constructed of a cylindrical barrel or body having a plug fastened in each end, which not only held the flanges of the spool against the ends of the barrel, but also served as journals to fit onto a spindle or other support. Heretofore the plugs have been made cylindrical exteriorly and cemented within the ends of the barrel, and a serious objection to such construction has been that under conditions of ordinary use the spool is subjected to strains which tend to twist the plug in the barrel, so that it often happens that the plug is loosened and separated from the barrel.

The principal object of my invention is to obviate this objectionable characteristic of the construction of spools heretofore employed.

My improved spool or bobbin comprises, as usual, a body or barrel, two flanges, and two plugs, but differs from spools or bobbins as heretofore constructed in that the plugs are ribbed or polygonal in cross-section and forced through the flanges into the ends of the barrel, so that, in effect, both the flanges and barrel are directly locked to the plug and held against relative rotary movement by one or more splines.

In the accompanying drawings, Figure 1 is a central longitudinal sectional view of a spool or bobbin embodying one form of my invention. Fig. 2 is a section on line 2-2 of Fig. 1. Fig. 3 is an elevation of one of the plugs hereinafter described.

Having reference to the drawings, 1 represents the barrel or body of my improved spool or bobbin, into the ends of which are driven

plugs 2, which hold flanges 3 against the ends of the barrel 1. The body or barrel 1 and flanges 3 are usually made of a slightly-compressible material, such as wood fiber, while it is customary to use natural wood for the plugs 2. As shown in Figs. 2 and 3, each plug 2 is polygonal in cross-section. At one end each plug is made with a head 4 and at its other end is beveled, as at 5.

In assembling the parts the flange-rings 3 are forced onto the plugs and the plugs forced into the open ends of the barrel or body 1. It is customary also to apply cement to the plug and inner side of the barrel before the plug is driven into said barrel. As will now be clear, there is a salient rib or spline formed by the linear junction of each two adjacent flat facets of each plug, so that when the plug is driven into the barrel the two are, in effect, connected by a multiplicity of splines, and thereby locked against relative rotary movement, the interior of the barrel being grooved or channeled by the introduction of the plug. It will also be clear that these splines are provided without involving so material a departure from the cylindrical shape of the plug as to disturb the cylindricity of the exterior of the barrel to a material or discernible degree. The advantage to this is that when the plug is forced into position no bulges or ribs are made upon the outside of the barrel, which retains substantially its original cylindrical shape.

The object in beveling the inner end of the plug is to facilitate its passage into position within the barrel.

As shown in Fig. 1, the head 4 of each plug 2 is less in thickness than the flange, so that the latter is mounted partly upon the polygonal part of the plug and by its engagement therewith is locked against turning relatively to the plug. Thus it will be seen that in the best form of my invention all parts of the spool are locked together and prevented from turning relatively.

What I claim is—

1. A spool or bobbin comprising a barrel; two ribbed plugs each driven into one of the ends of said barrel with its rib or ribs embed-

ded in the latter, and two flanges each mounted upon the outer end of one of the plugs alongside the end of the barrel and directly engaging the rib or ribs of its plug.

- 5 2. A spool or bobbin comprising a barrel; two polygonal plugs each made at its outer end with an inwardly-tapered head and each driven into one of the ends of the barrel so that its angles are embedded in the latter, and two  
10 flanges each mounted upon the outer end of one of the plugs and held against one end of

the barrel by the head of the plug, with the angles of the plug in direct engagement with the flange.

Signed by me at Portsmouth, in the State of 15  
New Hampshire, this 19th day of December,  
1903.

WALTER E. BENNETT.

Witnesses:

CALVIN PAGE,  
EMILY STAVERS.