

No. 649,639.

E. E. HENDRICK.

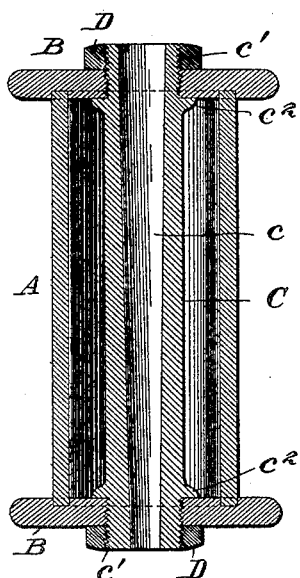
Patented May 15, 1900.

BOBBIN.

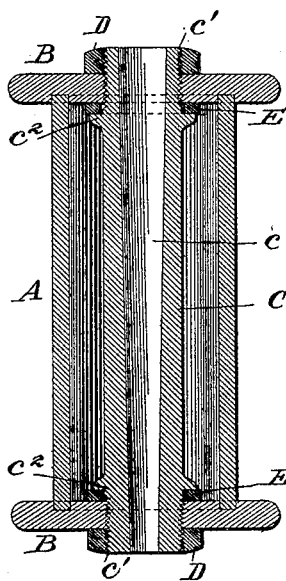
(Application filed Aug. 3, 1899.)

(No Model.)

*Fig. 1*



*Fig. 2*



Witnesses:

*Jas. F. Coleman*  
*Geo. R. Taylor*

Inventor

*E. E. Hendrick*  
*By Myr. Edwards & Myr.*

Att'ys.

# UNITED STATES PATENT OFFICE.

ELI E. HENDRICK, OF CARBONDALE, PENNSYLVANIA.

## BOBBIN.

SPECIFICATION forming part of Letters Patent No. 649,639, dated May 15, 1900.

Application filed August 3, 1899. Serial No. 725,945. (No model.)

*To all whom it may concern:*

Be it known that I, ELI E. HENDRICK, a citizen of the United States, residing at Carbondale, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Bobbins, of which the following is a description.

The object of the present invention is to produce a bobbin constructed of few parts, which shall be easily assembled and applied, and which shall be durable in operation and cheap of manufacture.

In carrying out the invention I preferably construct the bobbin, in whole or in part, of hard fiber. In an approved form of construction I employ a tubular body of wood, the heads at either end of this body being of hard fiber. The bobbin so constructed is mounted upon an internal core or mandrel in the manner hereinafter described.

In the drawings, Figure 1 is a central section illustrating my invention, and Fig. 2 is a similar view illustrating a modification.

Referring to the figures, in which similar reference-letters denote corresponding parts, A designates the tubular body, preferably of wood and here shown as of uniform diameter throughout. At either end this body is provided with a circular head B, formed, preferably, of hard fiber. These heads are secured to the body in any suitable manner. In the drawings I have shown the inner surfaces of the heads B as provided with annular recesses in which the ends of the body are secured.

C designates the core or mandrel. As here shown, this is provided with a tapering bore *c* to receive the spindle on which the bobbin is mounted. Each end of the mandrel is exteriorly screw-threaded, as shown at *c'*. The mandrel is also provided near each end with an annular shoulder *c<sup>2</sup>*. The screw-threads *c'* extend to or toward these shoulders, as hereinafter described.

The heads B are centrally perforated and the sides of such perforations are preferably screw-threaded, so as to permit such heads to be screwed upon the threaded ends of the mandrel C.

DD designate jam-nuts interiorly threaded and engaging with the threaded ends of the mandrel C outside the heads B.

It will be seen that when the heads are in

proper position, as shown in the drawings, their under surfaces adjacent to the central threaded perforations rest upon and bear against the shoulders *c<sup>2</sup>*. On screwing the jam-nuts D down upon said heads all the parts are held securely against displacement.

In Fig. 2 I have illustrated a modification which consists of interposing washers E between the shoulders *c<sup>2</sup>* and the inner surfaces of the heads B. These washers may be interiorly threaded, if desired, and may be made of any suitable material. By employing washers E of different thicknesses a standard length of mandrel may be used in connection with bodies of different lengths, as will be understood. In the drawing, Fig. 2 the screw-threads on the ends of the mandrel are shown as ending short of the shoulders *c<sup>2</sup>*, the sides of the central perforation in the washers E in this case not being threaded.

What I claim, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a bobbin having a body provided with heads, a hollow core or mandrel provided with shoulders against which said heads bear and means for clamping said heads against said shoulders, substantially as described.

2. As a new article of manufacture, a bobbin having a body provided with heads, a hollow core or mandrel having shoulders against which said heads bear, the ends of said core or mandrel being threaded and protruding through and beyond said heads, and jam-nuts engaging with the projecting threaded portions and adapted to clamp said heads in position, substantially as described.

3. As a new article of manufacture, a bobbin having a body provided with heads, a hollow core or mandrel having shoulders carrying washers against which said heads bear, the ends of said core or mandrel being threaded and protruding through and beyond said heads, and jam-nuts engaging with the projecting threaded portions and adapted to clamp said heads in position, substantially as described.

This specification signed and witnessed this 1st day of August, 1899.

ELI E. HENDRICK.

Witnesses:

GEO. W. CROSS,  
J. R. VANDERFORD.