

(No Model.)

G. O. BOYNTON.

SPOOL OR BOBBIN.

No. 343,361.

Patented June 8, 1886.

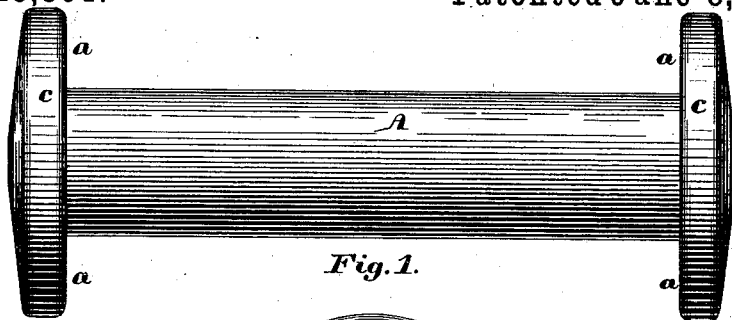


Fig. 1.



Fig. 4.

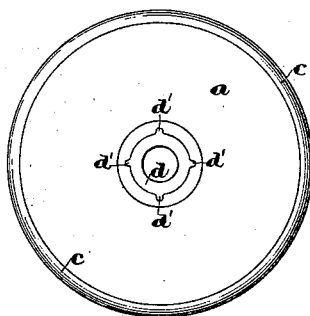


Fig. 2.

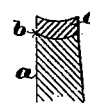


Fig. 5.

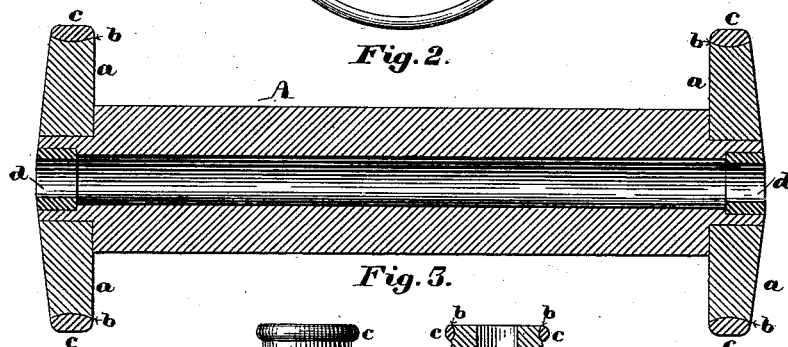


Fig. 3.

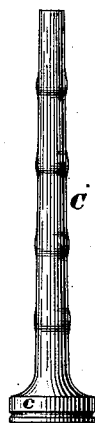


Fig. 8.



Fig. 6.

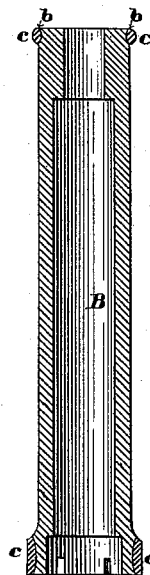


Fig. 7.

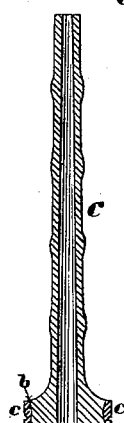


Fig. 9.

Witnesses:

Walter E. Lombard
William H. Pany

Inventor:

George O. Boynton,

by N. A. Lombard
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE O. BOYNTON, OF BOSTON, ASSIGNOR TO STEPHEN MOORE,
TRUSTEE, OF NEWTON, MASSACHUSETTS.

SPOOL OR BOBBIN.

SPECIFICATION forming part of Letters Patent No. 343,361, dated June 8, 1886.

Application filed August 1, 1884. Serial No. 139,372. (No model.)

To all whom it may concern:

Be it known that I, GEORGE O. BOYNTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Spools or Bobbins, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention has for its object the re-enforcing of the flanges of spools and bobbins made of wood, so as to render them smooth and hard without materially increasing the weight thereof; and it consists in covering the edges or peripheries of said flanges with leatheroid.

It further consists in a spool or bobbin having its flange or flanges re-enforced by an endless band or hoop of leatheroid, as will be described.

It further consists in a spool or bobbin made of wood and having in the outer edge of its flange or flanges a concavity extending circumferentially around the same and re-enforced by an endless band of leatheroid shrunk thereon, as will be more fully described.

The term "leatheroid" as used in this application refers to a material made from paper chemically treated—such, for instance, as is described in Letters Patent No. 198,382, granted to T. and T. S. Hanna, December 18, 1877.

Figure 1 of the drawings is an elevation of a spool embodying my invention. Fig. 2 is an end view of the same. Fig. 3 is a central longitudinal section thereof. Figs. 4 and 5 represent details of construction to be hereinafter referred to. Figs. 6 and 7 are respectively an elevation and a central longitudinal section of a quill or pirn bobbin having my invention applied thereto, and Figs. 8 and 9 are similar views of a cop-bobbin with my invention applied thereto.

In carrying out my invention I first turn the spool A or bobbin B or C to the desired shape, except that the flange or flanges *a*, as the case may be, are made somewhat smaller in diameter than they are to be when finished, and have turned in their peripheries shallow circumferential cavities *b*, as clearly shown in Fig. 4. A ring or endless hoop of leatheroid, *c*, is then cut from a tube of said material having an interior diameter slightly less than

the smallest diameter of said flange, which is immersed in water to swell it, and it is then slipped upon the flange *a*, as shown in Fig. 4, and allowed to dry, when it shrinks into said concavity and into firm contact with the wood, as shown in Fig. 5, after which the spool or bobbin is placed in a lathe and the re-enforcing ring is turned off to the desired shape, whether oval, as in Figs. 1 and 2 and the upper end of Figs. 6 and 7, or cylindrical, as in Figs. 8 and 9 and the lower end of Figs. 6 and 7.

I am aware that the flanges of spools and bobbins have been re-enforced with rawhide; but this has been done by wrapping a ribbon of rawhide one or more times around the flange and securing it thereon by glue or other adhesive material, and has been found objectionable, or, rather, not entirely satisfactory, for the reason that the glue is liable to lose its holding qualities after a time, and the band becomes loosened or peels up at one end, and presents an obstacle to the unwinding of the yarn, which can never occur with my re-enforce, as it is an endless hoop and requires no glue to hold it in position, though glue may be used, if desired, as an additional security.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A spool or bobbin having the edge of its flange or flanges composed of leatheroid, substantially as described.

2. A spool or bobbin having the periphery of its flange or head protected by an endless band made of leatheroid, substantially as described.

3. A spool or bobbin having in the outer edge of its flange or head a concavity extending circumferentially around the same and re-enforced by an endless band made from leatheroid shrunk thereon, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 30th day of July, A. D. 1884.

GEORGE O. BOYNTON.

Witnesses:

WALTER E. LOMBARD,
WILLIAM H. PARRY.