(No Model.)

G. O. BOYNTON.

SPOOL OR BOBBIN.

No. 433,885. Patented Aug. 5, 1890.

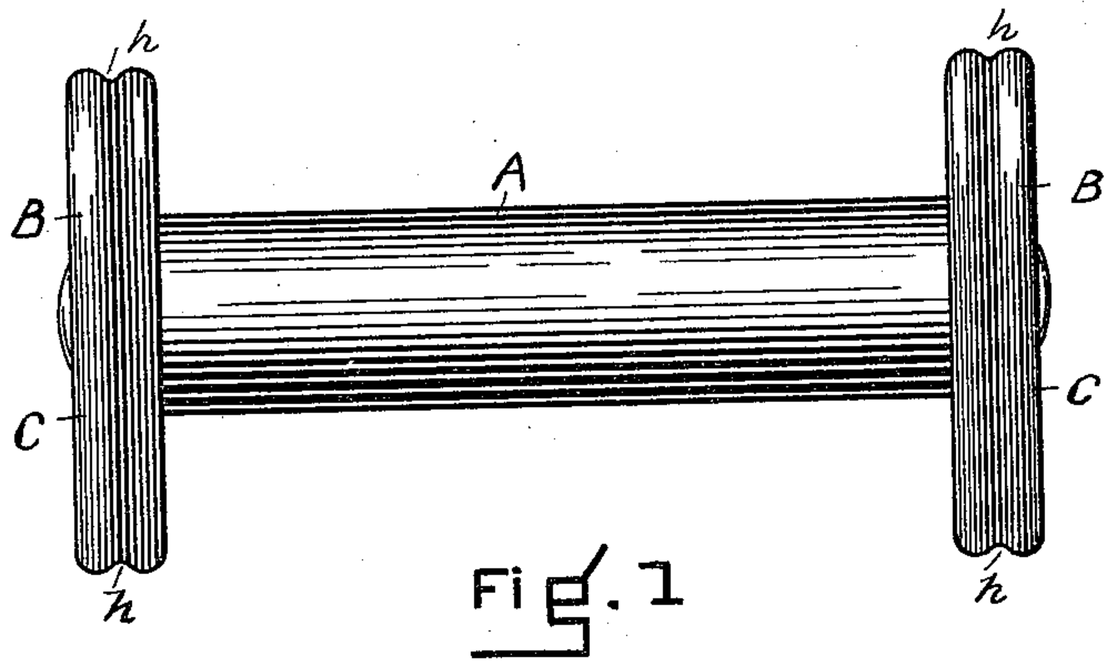

Fig. 1

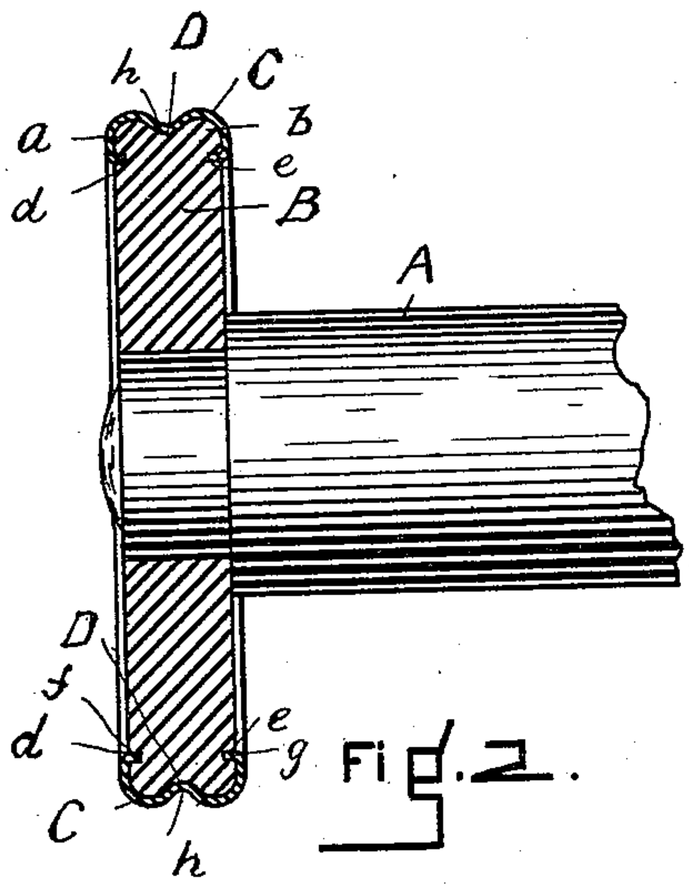

Fig. 2.

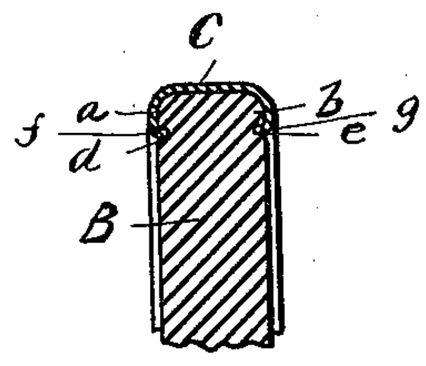

Fig. 3.

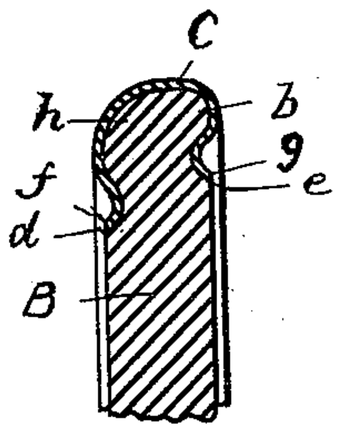

Fig. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE O. BOYNTON, OF BOSTON, ASSIGNOR OF ONE-HALF TO GEORGE K. LITTLEFIELD, OF NEWTON, MASSACHUSETTS.

SPOOL OR BOBBIN.

SPECIFICATION forming part of Letters Patent No. 433,885, dated August 5, 1890.

Application filed October 17, 1889. Serial No. 327,279. (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 certain new and useful Improvements in Spools or Bobbins, of which the following is a full, clear, and exact description.

This invention relates to a spool or bobbin for use more particularly in machines relating to spinning; and the invention consists of covering and protecting the edges of the heads of bobbins or spools with metal, all substantially as hereinafter fully described, reference being had to the accompanying sheet of drawings, in which—

Figure 1 represents in side view a spool or bobbin having this invention applied thereto; Fig. 2, a view of one end of a bobbin, showing the head in section; Figs. 3 and 4, detail sections of the spool-head, to be hereinafter referred to.

In the drawings, A represents the barrel, and B B the heads, of a spool or bobbin, all constructed as usual in spools or bobbins for machines relating to spinning and needing no particular description herein, except so far as the present invention is concerned. On the edge of each head of the spool is a sheet-metal plate C, which extends around on each side of the same a short distance, and is preferably made of a metal that can be spun around the edge of the head to cover it in accordance with this invention. The metal for covering and protecting the edge of each head can be prepared in any of the usual ways for spinning it on the head, preferably in the form of a flat-ring shape of the desired width, and then pressed up into shape and spun around the edges in any of the usual and well-known ways of spinning metal.

Each head of the spool is first prepared for receiving its metal covering by making, preferably, a circumferential groove D in its edge and preferably rounding its corners *a b* and making grooves *d e* in its sides, as shown in Fig. 2. The metal is placed upon the edge of the head, and then at each side is turned over the round corner, and each of its edges *f g* pressed into its respective groove *d e* in the sides of the head, after which the metal at its central part *h* is pressed down into the circumferential groove D, and made to fit closely and firmly the edge of the head.

In Fig. 3 the groove D is dispensed with and the edge of the head made flat; but the metal is forced over the sides of the edge and its edges are forced into the side grooves, as before.

In Fig. 4 the metal is shown as forced around the edge of the head and the edge portions of the strip into wider grooves in the sides and turned back partially, as shown, one side *h* of the head, which is the outside, being turned off more than the other.

By protecting both sides of the edge of the head of the spool by metal and having it bent round and secured in the side grooves, including the central peripheral groove, the shape and form of the metal secures great strength to the same and to such an extent that the spool-head, when made of wood, can be made in one piece, as shown, being much cheaper than when made of two pieces or thicknesses of wood and glued together. It also prevents any splitting or breaking of the edge or any warping of the head, and with the edges of the metal projecting in the sides of the head the metal strip is the more firmly secured in place, advantages which are very desirable in such spools.

Obviously this invention is applicable to spools for other purposes as well as for the use herein particularly described.

Having thus described my invention, what I claim is—

1. A spool having the edge of one or each of its heads covered with a metal strip which extends around the edge and a short distance on each side of the head and each edge of the metal strip being bent inward and disposed in a groove in its respective side, for the purpose specified.

2. A spool having the edge of one or both of its heads covered with a metal strip which extends around the edge and a short distance on each side of the head, each edge of the metal strip being bent inward and disposed in a groove in its respective side and its central portion depressed into a circumferential groove in the edge of the head, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE O. BOYNTON.

Witnesses:

EDWIN W. BROWN,

CARRIE E. NICHOLS.