F. MOSSBERG.

BOBBIN.

APPLICATION FILED JULY 28, 1913.

1,105,289. Patented July 28, 1914.

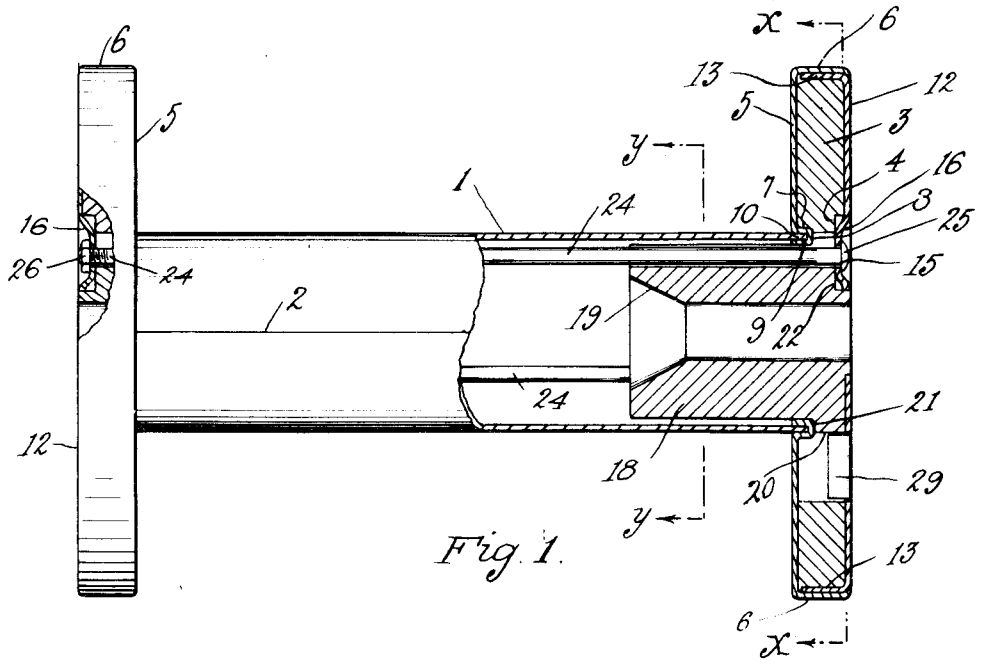


Fig. 1.

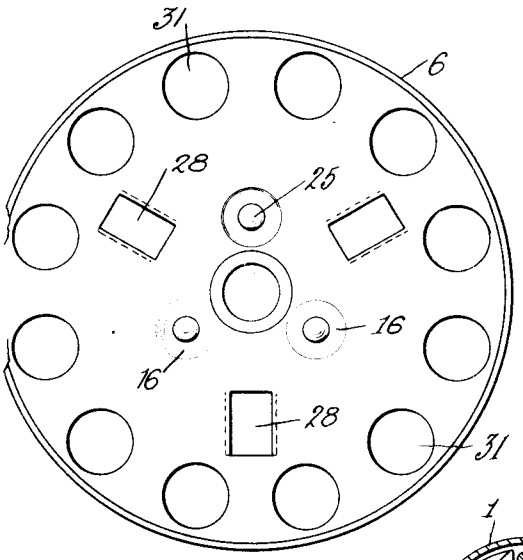


Fig. 2.

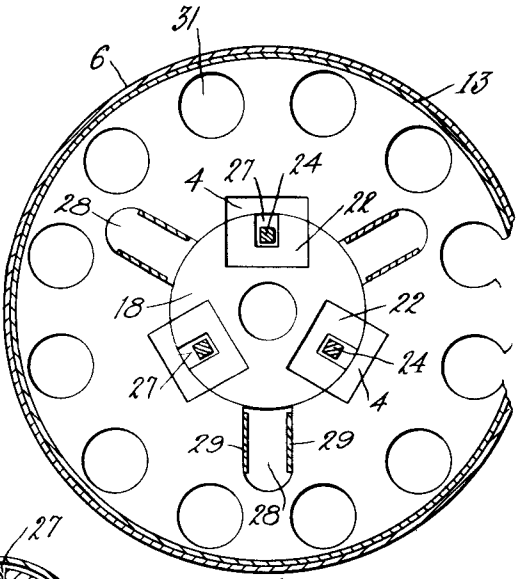


Fig. 3.

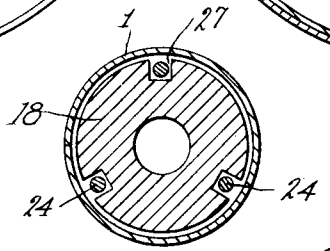


Fig. 4

Witnesses.

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UNITED STATES PATENT OFFICE.

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BOBBIN.

1,105,289. Specification of Letters Patent. Patented July 28, 1914.

Application filed July 28, 1913. Serial No. 781,475.

To all whom it may concern:

Be it known that I, FRANK MOSSBERG, a citizen of the United States, residing at Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Bobbins, of which the following is a specification.

My invention relates to bobbins or spools intended for use by cordage manufacturers and is proposed to supplant the wooden spool now used as a standard.

The objects of my invention are to provide a novel means of applying a sheathing; to provide an improved means of uniting the heads in conjunction with the end plugs; and to render the bobbin more firm, strong, and serviceable.

Further novel features will be pointed out in this specification and be made the subject of claims.

In the accompanying drawings which form a part of this specification and in which like reference characters indicate like parts throughout the views, Figure 1 is a side elevation partially in central longitudinal section of my novel bobbin or spool; Fig. 2, an end elevation of the same, and Figs. 3 and 4, sections of the same on lines x x and y y respectively of Fig. 1.

In its present and preferred embodiment my bobbin comprises a body 1 of thin sheet metal having its contact edges 2 united by solder or by riveting or by any other convenient means. The heads of the bobbin or spool are of similar construction and similarly applied, and for this reason, a detailed showing and description of only one head and its attaching means is herein detailed. Each head comprises an annular disk 3 of wood or other material provided with a rectangular counter sunk portion 4 upon this outer face at its central margin. Upon the rear face of the disk 3 is a metallic plate or disk 5 provided with an annular outwardly directed flange 6 upon its periphery. Near the center of the disk the material is inwardly bent as at 7 forming a flange that impresses the inner margin of the disk 3, which flange is bent at right angles to the portion 7 as at 8, and then bent outwardly as at 9, forming an annular recess 10 in the back of the sheathing of the head in which the end of the barrel 1 is tightly seated. Upon the outer face of the disk 3 is a second metallic disk 12 having an inwardly directed peripheral flange 13 embracing the periphery of the disk 3, and overlapped by the flange 6 whose outer edge is downwardly bent in tight contact with the flange 13. Near its inner margin the disk 12 is provided with a series of annular openings 15, and around these openings the material is inwardly bent as at 16 for a purpose to be later mentioned. In each end of the barrel is inserted a plug 18 provided preferably with a conical inner end 19, and having an enlarged end portion 20 forming an annular shoulder 21. At intervals in the front end portion of the plug are rectangular depressions 22 registering with the depressions 4 of the disk 3.

The two heads of the bobbin are connected by bolts 24 extending through the openings 15, and whose heads 25 and nuts 26 are within the planes of the disks 12 by virtue of the depressed portions 16 and the corresponding depressions 4 and 22 already mentioned. These bolts tightly force the ends of the barrel 1 into their seats 10 in the heads, and the flanges 9 are held snugly in contact with the inner surface of the barrel 1 by the plugs 18. The bolts 24 pass through longitudinal channels 27 in the plugs 18.

At intervals the disk 3 is provided with radial openings 28, and into these openings are downwardly bent lips 29 formed by slitting the metal of the disk 12 in a T shape and inwardly bending the slit margins of the metal. These lips form a lining for the openings 28 into which openings are adapted to enter the lugs upon the base of the driving spindle.

If desired, openings 31 may be made at intervals in the heads in order to lessen the weight of the heads, but this is not essential.

The bevels 19 assist in guiding the spindle when the bobbin is applied.

What I claim is:—

1. In a bobbin or spool, the combination of a tubular metallic barrel, plugs in the ends of the barrel and projecting therefrom, annular disks of comparatively soft material surrounding the projecting portions of the plugs, annular metal plates upon the inner faces of the disks, inwardly directed flanges upon the plates embracing the inner margins of the disks, outwardly directed flanges upon the last mentioned flanges in contact with the plugs and forming recesses to receive

the ends of the barrel, annular metal plates upon the outer faces of the disks overlapping the ends of the plugs, flanges upon the peripheries of the plates overlapping the disks, and bolts connecting the outer plates.

2. In a bobbin or spool, the combination of a tubular metallic barrel, plugs in the barrel projecting from the ends thereof, wooden disks surrounding the projecting portions of the plugs, annular metal plates upon the inner faces of the disks in contact with the ends of the barrel, annular plates upon the outer faces of the disks overlapping the ends of the plugs, peripheral flanges upon the inner and outer plates overlapping the disks, and bolts connecting the outer plates.

3. In a bobbin or spool, the combination of a tubular metallic barrel, plugs in the barrel projecting from the ends thereof, said ends being provided with enlarged portions, and provided with longitudinal channels, annular wooden disks surrounding the enlarged portions of the plugs, annular metal plates upon the inner faces of the disks provided with seats adapted to receive the ends of the barrel, annular plates upon the outer faces of the disks overlapping the ends of the plugs and provided with openings in their inner margins, flanges upon the peripheries of the inner and outer plates overlapping the disks, and bolts connecting the outer plates passing through the openings and through the channels in the plugs.

4. In a bobbin or spool, the combination of a tubular metallic barrel, plugs in the ends of the barrel projecting beyond the ends of the barrel and provided with longitudinal channels, annular disks upon the projecting portions of the plugs, annular metal plates upon the inner faces of the disks in contact with the ends of the barrel, annular plates upon the outer faces of the disks overlapping the ends of the plugs and provided with openings near their inner margins, said disks and plugs being provided with rectangular depressions, said outer plates being also provided with depressions adjacent the openings and adapted to register with the depressions in the disks and plugs, bolts passing through the openings and through the channels, and heads upon the bolts resting in the depressions of the outer plates.

5. In a bobbin or spool, the combination of a tubular metallic barrel, plugs in the ends of the barrel projecting therefrom, annular disks surrounding the projecting portions of the plugs, annular metal plates upon the outer faces of the disks overlapping the ends of the plugs, flanges upon the peripheries in the inner and outer plates overlapping the disks, bolts connecting the outer plates, said disks being provided with radial cavities, and flanges upon the outer plates frictionally engaging the walls of the cavities.

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

FRANK MOSSBERG.

Witnesses:

EDGAR F. BOSWORTH,

ELEANOR I. JONES.