June 9, 1942. G. B. MARKLE, JR 2,285,732

BOBBIN OR THE LIKE

Filed Aug. 16, 1939

FIG. 1.

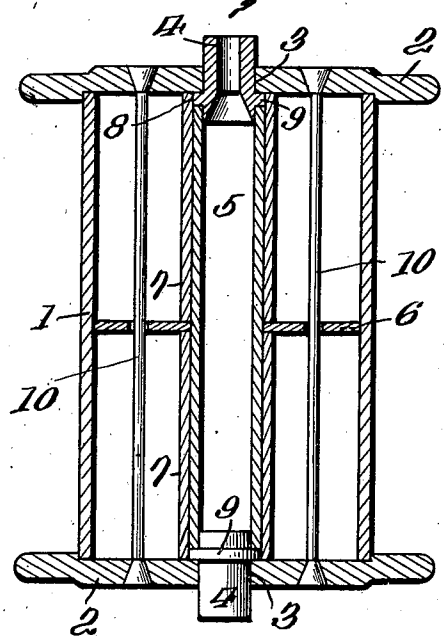


FIG. 4.

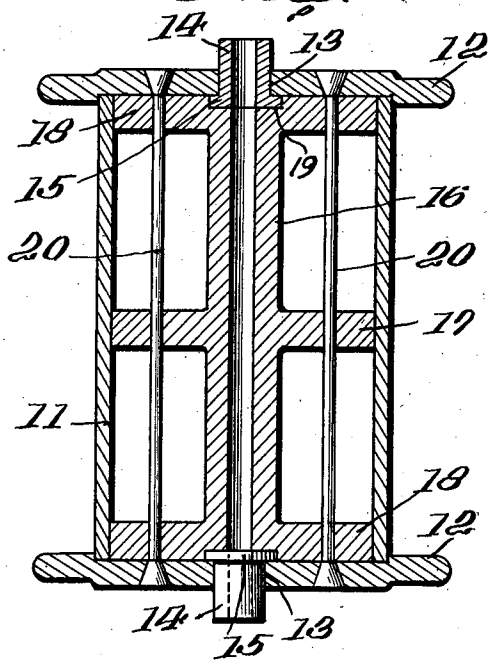


FIG. 2.

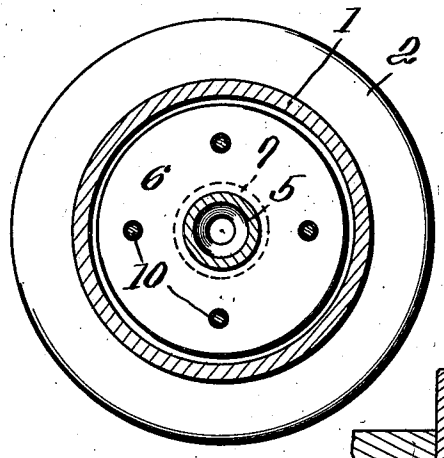


FIG. 5.

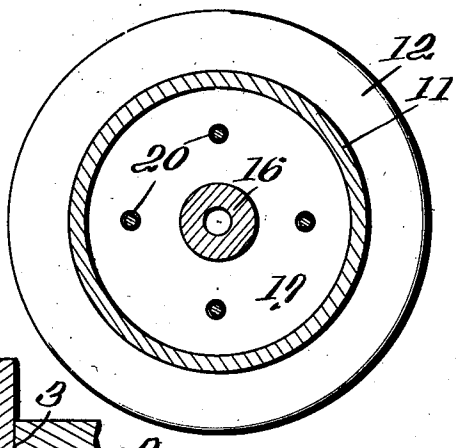
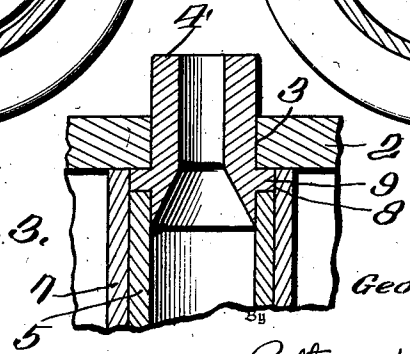


FIG. 3.



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Patented June 9, 1942

2,285,732

UNITED STATES PATENT OFFICE

2,285,732

BOBBIN OR THE LIKE

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Application August 16, 1939, Serial No. 290,478

6 Claims. (Cl. 242—118)

This invention relates to certain new and useful improvements in bobbins, spools and the like, the object being to provide a hollow barrel bobbin or the like which is very simple and cheap in construction and very durable in use.

Another object of my invention is to provide a hollow barrel bobbin which is light in construction, the same being provided with a core for locking the collets in position within the heads of the bobbin.

Another object of my invention is to provide a bobbin or the like with a core carrying a reinforcing disc for reinforcing the barrel and the rivets employed for locking the heads on the barrel so as to prevent the same from being distorted in use.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing:

Figure 1 is a longitudinal section of a bobbin constructed in accordance with my invention;

Figure 2 is a transverse section;

Figure 3 is a detail enlarged section showing the manner of securing the collet within the head;

Figure 4 is a longitudinal section through a modified form of bobbin; and

Figure 5 is a transverse section through the same.

In the construction of bobbin as illustrated in Figures 1 to 3, a hollow barrel 1 is disposed within annular grooves formed in the heads 2. The heads are provided with central openings 3 in which are disposed collets 4. Disposed within the hollow barrel is a central core herein shown composed of a plurality of sections comprising an inner tubular member 5 on which is disposed a reinforcing disc 6 which is held as herein shown in the central position by sleeves 7. The ends of the sleeves extend beyond the ends of the central tubular member 5 and form an annular recess 8 to receive an annular flange 9 formed on the collets so as to hold the collets in position within the heads.

The heads are secured in position on the ends of the barrel by longitudinally disposed rivets 10 and when the parts of the bobbin are assembled as clearly shown in Figures 1 to 3, the collets are securely locked in position within the heads by the core.

In assembling the parts of the bobbin the collets are placed in the central openings with the annular flanges against the inner walls of the heads and the core is placed in position between the heads within the barrel with annular flanges on the collets within the recesses formed by the central tube and sleeves so that when the heads are drawn together and fastened by the rivets, the respective parts of the barrel will fasten together and the collets are locked within the heads.

The reinforcing disc 6 prevents the rivets from bending and also supports the barrel and while I have only shown one reinforcing disc, it is, of course, understood that one or more discs can be used without departing from the spirit of my invention.

In the modifications shown in Figures 4 and 5, the bobbin is composed of a barrel 11 over which are arranged heads 12 having central apertures 13 in which collets 14 are disposed having annular flanges 15 arranged against the inner faces of the heads. Disposed within the barrel is a core comprising a central tubular portion 16 having a centrally disposed reinforcing disc 17 and end reinforcing discs 18, the core being herein shown formed as a single unit by milling, molding or fabricating the same and the ends of the tubular portion are provided with recesses 19 to receive the flanges 15 of the collets for locking the same in position. The heads are secured in position on the barrel by longitudinally disposed rivets 20 which extend through the reinforcing disc and lock the central core in position in a similar manner to that disclosed in the preferred form.

While in the drawing I have shown collets extending outwardly beyond the heads of the barrel, it is, of course, understood that they could terminate flush with the outer faces of the heads without departing from the spirit of my invention.

The collets as shown in the preferred form of my invention are provided with flaring or conical bores at their inner ends so as to facilitate the placing of the bobbin or the like on a spindle.

In the preferred form of my invention, I have shown a core formed of a plurality of separable sections so disposed within the barrel as to lock the collets securely in position within the heads to withstand the strain to which they are subjected and in the modification I have shown the collets locked in the barrel by a core formed as a unit.

From the foregoing description it will be seen that I have provided a bobbin or the like which is very light in construction with means for positively locking the collets in position within the

heads when the parts are assembled and connected together by the longitudinally disposed rivets whereby a very strong and durable spool, bobbin or the like is formed which will withstand the strain to which it is subjected, the parts being so constructed that the same can be assembled quickly in forming the bobbin.

What I claim is:

1. A bobbin or the like comprising a barrel having apertured heads arranged over its ends, collets disposed in the apertures of said heads provided with annular flanges, a core disposed in said barrel having annular recesses to receive the flanges of said collets and rods extending longitudinally through said barrel for connecting the said heads together over the ends of said barrel.

2. A bobbin or the like comprising a barrel having apertured heads arranged over its ends, collets disposed in the apertures of said heads provided with annular flanges, a core disposed in said barrel having annular recesses to receive the flanges of said collets, rivets extending longitudinally through said barrel for connecting the said heads together over the ends of said barrel and a reinforcing disc carried by said core through which said rivets pass.

3. A bobbin or the like comprising a tubular barrel having centrally apertured heads arranged over the ends thereof, annularly flanged collets disposed in the apertures of said heads, a core composed of a central tubular portion having annular recesses in its ends to receive the annular flanges of said collets and rivets extending longitudinally through the barrel of said bobbin connecting said heads for locking the heads on said barrel and the core between said heads.

4. A bobbin or the like comprising a tubular barrel having centrally apertured heads arranged over the ends thereof, annularly flanged collets disposed in the apertures of said heads, a core composed of a central tubular portion having annular recesses in its ends to receive the annular flanges of said collets, rivets extending longitudinally through the barrel of said bobbin connecting said heads for locking the heads on said barrel and the core between said heads and a reinforcing disc carried by said core having apertures through which the rivets pass.

5. A bobbin or the like comprising a tubular barrel, heads arranged over the ends of said barrel having central openings, collets having annular flanges disposed in said openings, a tube disposed within said barrel having its ends arranged against the flanges of said collets, a reinforcing disc surrounding said tube, sleeves surrounding said tube at each side of said disc having their inner ends engaging said disc and their outer ends engaging the heads and rivets extending longitudinally through said barrel for connecting said heads together over the ends of said barrel.

6. A bobbin or the like comprising a tubular barrel, heads arranged over the ends of said barrel provided with central openings, collets arranged in said openings having annular flanges, a tubular core disposed within said barrel between said heads having annular recesses at its ends to receive the annular flanges of said collets, said core having a plurality of reinforcing discs and longitudinally disposed rivets extending through said heads and reinforcing discs for connecting said heads together over said barrel.

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