April 18, 1939. G. B. MARKLE, JR 2,155,140

BOBBIN

Filed Aug. 7, 1937

FIG. 1.

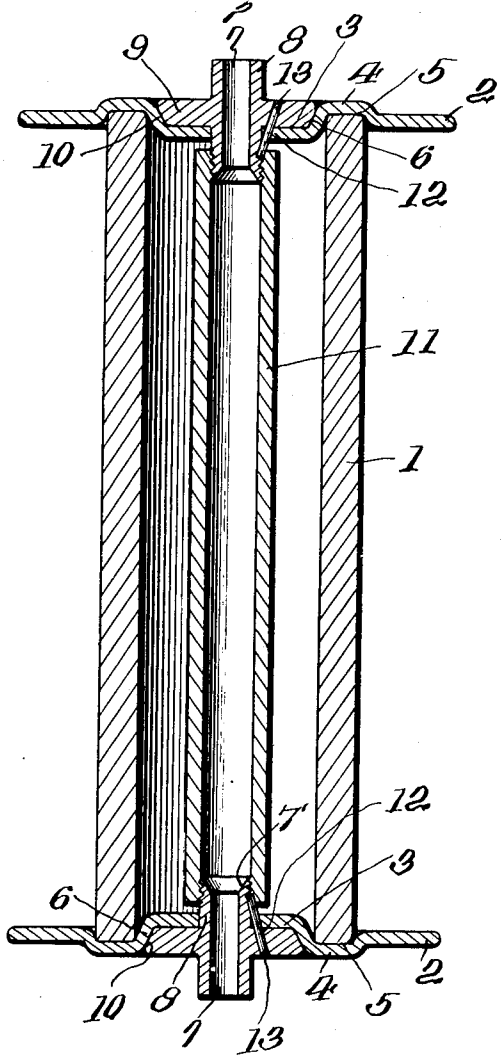


FIG. 2.

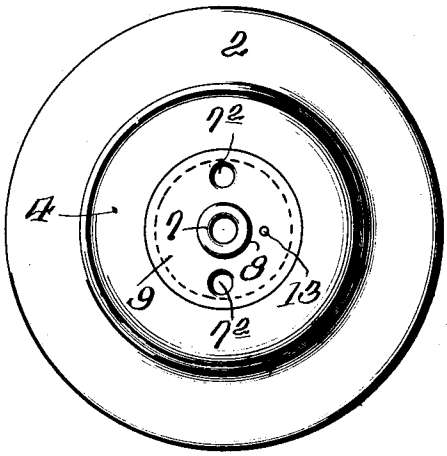
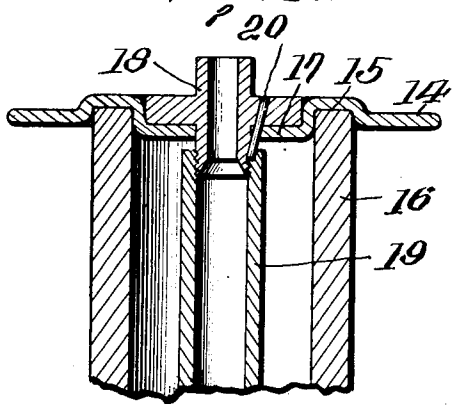


FIG. 3.



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BOBBIN

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5 Claims. (Cl. 242—118)

This invention relates to certain new and useful improvements in bobbins and more particularly to steaming bobbins, the object being to provide a bobbin which is exceedingly simple and cheap in construction, the same being formed of a barrel having heads secured in position on the ends thereof by collets which are screwed into a central core in order to fasten the collets in position on the heads and the heads in position on the barrel.

Another object of my invention is to provide a steaming bobbin which can be assembled very quickly and after being assembled means is provided for locking the collets to prevent the same from turning, thereby rigidly securing the heads on the ends of the barrel and the collets in position in the heads.

A still further object of the invention is to provide the heads with annular recesses to receive the ends of the barrel and with circular depressions to receive the collets whereby a very strong and durable bobbin is formed.

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 through a steaming bobbin constructed in accordance with my invention;

Figure 2 is an end view; and

Figure 3 is a detail longitudinal section through a modified form.

In the drawing 1 indicates a tubular square end barrel which may be formed of any kind of material such as wood, Bakelite, aluminum, steel or the like, over the ends of which are arranged circular stamped metal heads 2 provided with central depressions 3 centrally apertured and surrounded by annular ribs 4 which form on their inner faces circular recesses 5 in which the ends of the barrel are seated.

The walls of the depressions 3 are inclined as shown at 6 and arranged in these depressions are circular collets 7 comprising central tubular portions 8 and annular flanges 9 having beveled edges 10 corresponding to the inclination of the walls of the depressions in which the flanges are seated as clearly shown.

The inner ends of the tubular portions are externally threaded and are screwed into the internally threaded ends of a connecting metal tube 11 disposed in the barrel to form a core so that when the collets are turned, the heads are drawn into position on the ends of the barrel under pressure in order to form a strong and durable bobbin which can be quickly assembled.

The ends of the collets are preferably beveled as shown at 7^1 and the faces are provided with spaced depressions 7^2 adapted to receive a spanner or the like for rotating the same in order to position the members.

In order to prevent the collet from turning after being properly adjusted, I drill into the collet at an angle an opening 12 which terminates at the intersection of the threads of the collet and threads of the tube 11 and insert a pin 13 which is driven in position and swedged in place, thereby locking the collet in position in the head and the head in position on the barrel.

In the modification shown in Figure 3, the head 14 is provided with a recess 15 having straight walls to receive the barrel 16 and the central depression in the head 17 is provided with straight walls to receive the straight walls of the flange of the collet 18 which is threaded into the core 19 and is secured in position by pin 20. This provides square shoulders for the walls of the tubular barrel and for the outer square peripheral edges of the collet.

From the foregoing description it will be seen that I have provided a steaming bobbin which can be formed of all metal or with a wood or composition barrel, the parts being so arranged and constructed that they can be quickly assembled so as to form a very strong and durable bobbin in which the parts are so connected and locked that they will not be affected by expansion and contraction.

By constructing a bobbin with a tubular barrel, I am able to produce a bobbin which is very light in construction and very strong and durable, the parts being secured together in such a manner that after they have been placed in position and secured by the pins, the parts will be maintained in their proper position so that they will stand rough usage.

What I claim is:

1. A bobbin comprising a tubular barrel, a head arranged over each end of said barrel and having an annular recess to receive the ends of the barrel and a central depression, a core disposed within said barrel and having internally threaded ends, collets having externally threaded tubular portions working in the internally threaded ends of said core and an annular flange seated in said depression, and means for locking said collets in position within said core.

2. A bobbin of the kind described comprising a tubular barrel having heads disposed over the

ends thereof, each head being provided with a central depression surrounded by an annular recess to receive the ends of the barrel, a tubular core arranged within said barrel and having internally threaded ends, collets provided with annular flanges disposed within the depressions of said heads, said collets having threaded tubular portions working in the threaded portions of said core for drawing said heads in position on said barrel and the flanges of said collets within the depressions.

3. A bobbin of the kind described comprising a tubular barrel, heads disposed over the ends of said barrel and having annular recesses to receive the ends of said barrel, said heads being provided with centrally disposed apertured depressions having inclined walls, collets having flanges provided with beveled edges and corresponding in shape to said depressions, said collets having tubular portions externally threaded at their inner ends and a core disposed within said barrel having internally threaded ends to receive the externally threaded ends of said collets and a pin extending through each collet and head into said core for locking said collets within said heads.

4. As a new article of manufacture, an all-metal steaming bobbin comprising a tubular barrel, stamped metal heads arranged over the ends of said barrel, said heads being provided with central apertured depressions surrounded by annular recesses to receive the ends of said barrel, collets comprising central tubular members surrounded by annular flanges adapted to fit snugly within the central depressions, the inner ends of the tubular portions of said collets being externally threaded and a central tubular core having internally threaded ends in which said collets are screwed to lock said heads on said barrel and said collets in position within said heads and pins intersecting the threaded portions of said collets and core for preventing said collets from turning.

5. A bobbin of the kind described comprising a tubular barrel having heads disposed over the ends thereof, each head being provided with a central depression on its outer face surrounded by an annular recess on its inner face to receive the ends of the barrel, a tubular core arranged within said barrel and collets provided with annular flanges disposed within the depression of said heads, said collets having a threaded engagement with said cores for drawing said heads in position on said barrel and the flanges of said collets within the depressions of said head.

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