

No. 648,393

Patented May 1, 1900.

J. CONROY.
BOBBIN FOR SEWING MACHINE SHUTTLES.

(Application filed Feb. 23, 1900.)

(No Model.)

Fig. 1.

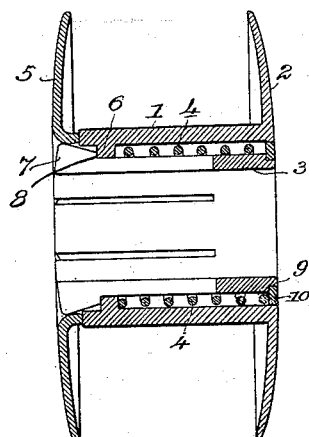
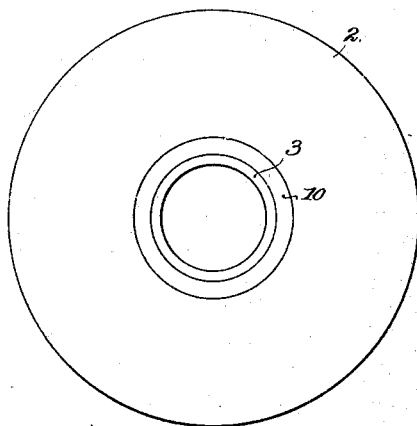


Fig. 2.



Witnesses:
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Inventor:
James Conroy,
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UNITED STATES PATENT OFFICE.

JAMES CONROY, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO THE
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BOBBIN FOR SEWING-MACHINE SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 648,393, dated May 1, 1900.

Application filed February 23, 1900. Serial No. 6,223. (No model.)

To all whom it may concern:

Be it known that I, JAMES CONROY, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Shuttle-Bobbins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an improvement in shuttle-bobbins, and more particularly to bobbins for use in the shuttles of sewing-machines.

The object of the present invention is to produce an improved separable shuttle-bobbin so constructed as to be easily taken apart to receive a wound cop, easily put together again, and firmly held together, with the heads always preserving certain and definite relation to each other, and which is furthermore adapted to have thread wound on it, if it should be desired to use it in that manner.

To the above end the present invention consists in the shuttle-bobbin hereinafter described, and particularly defined in the claim.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my improved shuttle-bobbin, and Fig. 2 is an end elevation.

The bobbin consists generally of two parts separably secured together. The cylindrical barrel 1, the fixed head 2, permanently attached thereto, the internal hollow cylindrical holding member 3, and the spring 4 constitute one of the two parts of the bobbin, of which the separable head 5 constitutes the other part. The cylindrical barrel 1 is of uniform internal diameter, except that it has an internal flange 6 located near but not at the end of the barrel opposite the head 2. The internal hollow cylindrical holding member 3 consists of a thin tube of spring metal having a slotted spring-head 7, which has the conical separable head-engaging surface which engages the head 5 and presses it firmly against the end of the cylindrical barrel 1. The spring-head 7 terminates with the shoulder 8, which enters the end of the barrel 1 and abuts against the internal flange 6. The other end of the holding member is rabbeted,

as at 9, and receives a flange 10, having an outside diameter substantially equal to the inside diameter of the cylindrical barrel and which is forced on the member or riveted on, so that it is permanently and rigidly secured thereto without the liability or danger of accidental removal therefrom. The spring 4 is placed inside of the cylindrical barrel 1 and outside of the internal hollow cylindrical holding member 3 and presses at one end against the internal flange 6 of the barrel and at the other end against the flange 10 of the holding member, thus normally holding the shoulder 8 of the latter against the internal flange 6 of the barrel.

The bobbin is assembled as follows: The internal hollow cylindrical holding member 3 is inserted in the end of the cylindrical barrel 1 until the shoulder 8 bears against the internal flange 6. The spring 4 is then inserted in the annular space between the two cylindrical members above referred to. Then the flange 10 is placed on the rabbeted end of the holding member 3 and securely fastened in position, as by riveting. The separable head 5 is then forced over the spring-head 7 of the holding member 3, which latter holds it securely against the end of the barrel 1.

It will be observed that the internal flange constitutes not only an abutment for the spring, but at the same time constitutes a positive abutment for the spring-head of the holding member, the flanged end of which latter is flush with the surface of the fixed head of the bobbin, presenting a smooth surface to rest upon the shuttle in which it is used. The setting of the internal flange back from the end of the barrel permits the spring-head of the holding member to project but little beyond the end of the barrel, thus compressing the structure longitudinally and enabling the separable head to be made very flat and with a short lateral flange, making the thread-receiving space of the bobbin conform very closely to the corresponding space of a solid bobbin. By reason of the fact that the holding member is secured in place by a flange 10, rigidly and permanently secured thereto, all liability of the accidental disengagement of the parts of the bobbin is effectually overcome. Furthermore, by this construction of

bobbin I am enabled to secure the preservation of the heads in certain and definite relation to each other.

5 This bobbin is particularly adapted for use in those shuttle sewing-machines in which the bobbin-chamber of the shuttle is provided with a central stud upon which the bobbin is placed.

10 The present invention is an improvement upon the shuttle-bobbin patented to me in Letters Patent of the United States No. 632,895, dated September 12, 1899, and is clearly distinguished therefrom by the claim.

15 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

20 In a shuttle-bobbin, the combination with a cylindrical barrel having an internal flange set back from one end thereof and a head fixed to the other end thereof, a separable head provided with a central opening surrounded by a short lateral inwardly-projected flange

adapted to engage the adjacent end of the barrel, a thin internal hollow cylindrical holding member having a slotted spring-head on one end provided with a shoulder adapted normally to engage the internal flange of the cylindrical barrel and a rabbet on the other end, a flange having an outside diameter, substantially equal to the inside diameter of the cylindrical barrel riveted on the rabbeted end of the holding member, and having its outer surface normally flush with the surface of the fixed head, and a spring located in the annular space between the cylindrical barrel and the holding member and pressing against the flanges on the said barrel and holding member, substantially as described. 25 30 35

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

JAMES CONROY.

Witnesses:

JAMES D. FARNSWORTH,
HORACE VAN EVEREN.