

(No Model.)

C. E. WILKINSON.

BOBBIN FOR SEWING MACHINE SHUTTLES.

No. 391,672.

Patented Oct. 23, 1888.

Fig1.

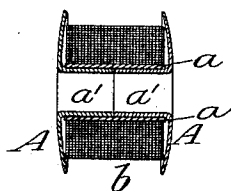


Fig3.

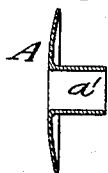


Fig2.

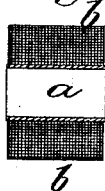


Fig4.

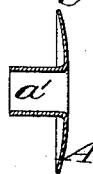
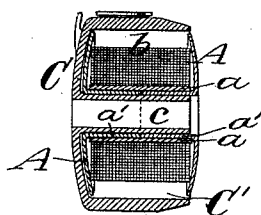


Fig5.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES E. WILKINSON, OF MATTEAWAN, NEW YORK.

BOBBIN FOR SEWING-MACHINE SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 391,672, dated October 23, 1888.

Application filed October 6, 1887. Serial No. 251,577. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. WILKINSON, of Matteawan, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Sewing-Machine Bobbins, of which the following is a specification.

My invention is applicable more particularly to those bobbins which are to be employed in shuttles or bobbin-cases such as are used in the Singer and Wheeler & Wilson machines, and which have a diameter considerably greater than their length, so as to be received in the cavities which are provided in the shuttles or bobbin-cases of such machines.

The invention relates to those bobbins which are composed of thread wound upon a tube—such as one of paper—which may be thrown away after use, and metal heads which are applied to opposite ends of the tube and on opposite sides of the thread. This construction of bobbin enables the sale of bobbins of thread already wound for use in quantity to the consumer, and the consumer has, when one bobbin of thread is used up, only to detach the metal heads therefrom and attach them to a new bobbin of thread in order to proceed with the work in hand.

The invention will be hereinafter described, and then pointed out in the claim.

In the accompanying drawings, Figure 1 is an axial section of a bobbin embodying my invention, the heads being applied ready for use. Fig. 2 is a similar section of the bobbin as sold and destitute of heads. Figs. 3 and 4 are axial sections of the two heads, and Fig. 5 is a section of the bobbin with its heads and inserted in the cavity of a shuttle or bobbin-case.

Similar letters of reference designate corresponding parts in the several figures.

The bobbin, as sold by the manufacturer to the dealer and by the dealer to the consumer, is illustrated in Fig. 2, and consists simply of thread *b* wound upon a tube, *a*, which is substantially the length of the bobbin. The thread *b* unwinds from the outside of the bobbin as from an ordinary spool, and the tube *a* is of paper or of some other material so cheap that it is never reused but is thrown away when the thread on the bobbin is exhausted.

To enable bobbins of this character to operate properly in the shuttle or bobbin-case C—

such as is shown in Fig. 5—it is necessary to combine other parts, which are usually of metal, therewith. The necessary parts are formed by two heads, A—such as are shown in Figs. 3 and 4—and each having projecting from its center a short tube section or neck, *a'*. These heads may be made of very thin metal with their tube sections or necks *a'* integral with the heads, and they may be of slightly concavo-convex form, as shown in Figs. 3 and 4.

The consumer, when desiring to use a bobbin, enters the short tube sections or necks *a'* of the two heads into the opposite ends of the paper tube *a* and presses them firmly until the two heads A come against the opposite ends of the bobbin, as is shown in Fig. 1, and to enable them to be there retained the tube sections or necks *a'* should fit with comparative tightness in the paper tube *a*, so as to be retained therein after they are pressed into place.

The shuttle or bobbin-case C has the usual approximately-circular cavity, C', for receiving the bobbin, and it is shown as having a post, *c*, projecting centrally lengthwise of the cavity C', and upon this post *c*, which is here shown as tubular, the bobbin rotates as upon a journal. It will be observed that when the heads A are pressed into position on opposite ends of the bobbin the tube sections or necks *a'* substantially meet at the center of the length of the bobbin, and these tube sections or necks form a perfect surface for turning upon the post *c*.

When the thread of a bobbin is exhausted all that is necessary is to withdraw the heads from the tube *a*, which is thrown away, and to press them into proper position on a new bobbin which is placed in the shuttle or bobbin-case, as before, and work proceeded with.

In some cases the shuttle or bobbin-case C may be destitute of a post, *c*, and the bobbin may rest and turn on the edges of the heads A.

According to my invention the necks or tube sections *a'* of the heads A are of uniform external diameter, so that they both snugly fit the tube *a* when inserted therein from opposite ends, and they have no connection with each other save by the tube *a*.

I am aware that bobbins of thread have been made before my invention by winding a tube of paper with thread and then applying to op-

posite sides thereof two heads, one of which has an internally screw-threaded socket which enters the tube, while the other head has an externally-threaded solid stud which is screwed into said socket.

My construction is distinguished from the old device, which is above mentioned, in having the short tube sections or necks a' , which are of uniform external diameter and enter snugly into the tube a from opposite ends thereof. My heads A , each with its tube section or neck a' , may be struck up from sheet metal by suitable dies, and no cutting of screw-threads is required. Neither in applying the heads to the tube wound with thread is there need of turning them to screw them together, but both may be slipped directly into place.

What I claim as my invention, and desire to secure by Letters Patent, is—

The bobbin herein described, consisting of a tube, a , wound with thread and constructed with a smooth interior surface, in combination with the removable heads A , separate from and independent of each other, and provided with necks a' , having a smooth exterior surface and a uniform diameter, both of the said necks fitting snugly into the tube a , from the opposite ends thereof, and connected with the tube by frictional contact only, substantially as set forth.

CHARLES E. WILKINSON.

Witnesses:

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