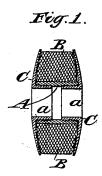
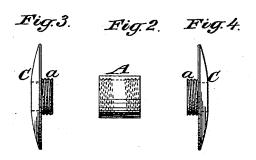
(No Model.)

## C. E. WILKINSON. BOBBIN FOR SEWING MACHINES.

No. 493,417.

Patented Mar. 14, 1893.





Witnesses: Of Sundgren J. George Barry.

Inventor: Charles & Wilkinson by his attorneys Fromt Clevar

## United States Patent Office.

CHARLES E. WILKINSON, OF WESTVILLE, CONNECTICUT.

## BOBBIN FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 493,417, dated March 14, 1893.

Application filed June 11, 1890. Serial No. 355,023. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. WILKINson, of Westville, in the county of New Haven and State of Connecticut, have invented a new 5 and useful Improvement in Bobbins for Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to those bobbins 10 which are composed of thread wound upon a tube and metal heads which are applied to opposite ends of the tube and on opposite sides of the thread.

I will proceed first to describe the construc-15 tion of my invention and afterward point out

its novelty in the claim.

In the accompanying drawings Figure 1 is an axial section of a bobbin embodying my invention having the heads applied ready for 20 use. Fig. 2 is an external longitudinal view of the tube for the reception of the thread. Figs. 3 and 4 are side views of the removable metal heads.

Similar letters of reference designate corre-

25 sponding parts in all the figures.

A designates the tube and B the thread thereon.

C C are the two heads provided with concentric necks a which project from their in-30 ner faces. These necks are hollow and open at their inner and outer ends, the latter being open to the exteriors of the heads. The said necks a are screw-threaded externally, and screwed into the tube A.

The body A may be made of paper or of other material of similar nature which is soft or yielding enough to permit the externally screw-threaded necks  $\vec{a}$  to be screwed into it | and so made to produce in it the necessary corresponding internal threads.

The tube A is intended to have the thread B wound upon it before the heads are applied. This winding may be done by any suitable method or machine for winding thread upon tubes.

The bobbin completed as shown in Fig. 1 may be applied in the shuttle of a sewing machine either with or without a central spindle. If the shuttle have a central spindle, the interiors of the necks may be of such caliber 50 as to fit the said spindle easily.

The heads C Care intended to be preserved for repeated use, but the tube may be discarded after the thread upon it has been used and a new tube wound with thread but hav- 55 ing no screw threads in it, may have the old heads screwed into it as hereinbefore described.

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

A sewing machine bobbin consisting of a tube wound with thread in combination with two removable metal heads separate from and independent of each other and provided with externally screw-threaded necks screwing 65 into opposite ends of said tube, the said tube being of material softer or more yielding than the said heads and necks to permit the screwthreaded necks to form corresponding screwthreads in the interior of said tube; substan- 70 tially as and for the purpose herein set forth.

CHAS. E. WILKINSON.

Witnesses:

C. A. MARVIN, GEORGE H. TAYLOR.