

(No Model.)

H. A. BATES.  
BOBBIN CASE FOR SEWING MACHINES.

No. 568,107.

Patented Sept. 22, 1896.

Fig. 1.

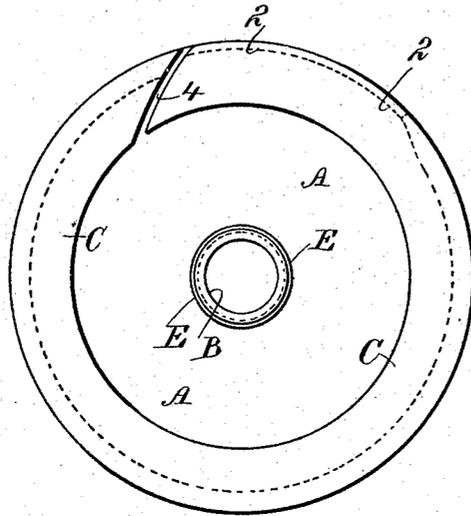
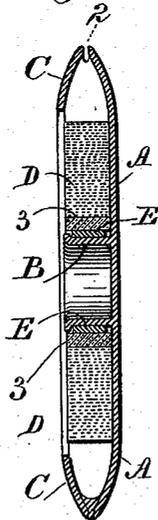


Fig. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## BOBBIN-CASE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 568,107, dated September 22, 1896.

Application filed July 24, 1895. Serial No. 556,988. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. BATES, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented an Improvement in Bobbin-Cases for Sewing-Machines, of which the following is a specification.

Bobbin-cases for sewing-machines have heretofore been made in two parts that can be separated one from the other, so as to introduce into such case a cop or bobbin ready wound, thereby facilitating the use of the machine and preventing the loss of time in winding the thread into the shuttle, and in some instances rotary hooks have been made open at one side and with a cavity into which a bobbin of thread can be inserted.

In sewing-machines of the class known as the "Wheeler & Wilson sewing-machine No. 2" the bobbin is made of two concave disks united together by a central tube, there being a narrow slit or opening between the edges of the disks, and the thread is wound into the bobbin by rotating the same, and such bobbin has not heretofore been adapted to receive into it a ready-wound bobbin of thread.

In my present improvement the bobbin-case is made with one side in the form of a concave disk, as heretofore used in the Wheeler & Wilson shuttle, and the configuration of the edges of the bobbin-case is unaltered, so that the bobbin-case is adapted to the place into which it has been heretofore received; but instead of having two complete disks the bobbin-case is open at one side, and the ring-shaped edge which takes the place of one of the disks is permanently affixed to the edge of the other disk, there being an opening at one part of the edge through which the thread passes, so that the side of the bobbin-case is open for the reception of the ready-wound bobbin, the same being passed over the central pin or tube.

In cases where the bobbin-case has been open at one side it has not been adapted simply to the reception of a bobbin of thread on a paper tube, as the same would be liable to fall out or the thread to become entangled.

I combine with the circular bobbin-holder having an open side and a rim, the surfaces being inclined in both directions to the periphery and having an opening through the

periphery for the thread, a central circular support or tube, a sleeve around such central support, and means for holding the same permanently in position and allowing it to rotate freely, such sleeve being adapted to receive and fit tightly the paper tube of the thread-bobbin, so as to hold such thread-bobbin within the bobbin-holder as the thread is drawn off at the periphery through the opening.

By this means I am enabled to provide a bobbin-case that is adapted to the reception of a ready-wound bobbin, and such bobbin-case can be used in the machines of the Wheeler & Wilson type, and there is no risk of the needle-thread becoming caught or entangled by the bobbin-case as it is passed around the same, and loss of time resulting from winding the thread into the bobbin is avoided, and the difficulties experienced in bobbin-cases made with two separable disks is avoided, because where two separable disks are employed with split tubes passing one into the other the bobbin-case may be too thick to work properly in the machine in consequence of the bobbin of thread being too thick or in consequence of the two parts of the bobbin-case not being properly set together.

In the drawings, Figure 1 is a side view of the bobbin-case, and Fig. 2 is a cross-section of the same in a magnified size.

The bobbin-case is made of a concave disk A, which is similar to the disk at one side of the bobbin-case heretofore made use of, and in the center of this disk is a short tube B, permanently fastened in position. In place of employing a second disk similar to the disk A, I make use of the beveled rim C, which has a central opening which is as large as the bobbin of thread that is to be made use of, and the beveled rim C is permanently connected around its edge to the edges of the concave disk A, except at the part 2, where there is an elongated opening or slot which comes in the same position in the sewing-machine as the peripheral slot around the ordinary Wheeler & Wilson bobbin; but in the present instance such slot is only of a length suitable for the thread to be passed out through the same.

The bobbin D of thread is wound in any suitable manner, preferably upon a paper

tube 3, and it is advantageous to wind the thread zigzag around the edges of the thread-bobbin, so as to lessen the risk of the thread drawing off around the short tube B, and I prefer to employ a loose tube E around the short tube B, such loose tube E being held in position by a collar or small flange around the end of the tube B; but such loose tube E may turn with more or less friction, so as to give more or less tension to the thread as the bobbin of thread is revolved in the act of drawing off the thread, it being understood that the paper tube 3 fits the exterior of the loose tube E with sufficient friction to cause the two to revolve together. It will be observed that the thread has to be passed through the opening or slot 2, and the thread may be threaded through this opening or slot previous to or at the time of inserting the thread-bobbin into the machine; but usually it is advantageous to cut in the beveled rim C a diagonal slot 4, so that the thread can be drawn through the same into the opening or slot 2 previous to placing the bobbin-case into the sewing-machine in the usual position. It will be observed that in consequence of the periphery of the bobbin-case remaining un-

changed it will operate in the usual manner, and it may be placed in the sewing-machine either way that is desired, especially in view of the fact that the friction between the paper tube 3 and the loose tube E prevents the thread-bobbin falling out from the bobbin-case.

I claim as my invention—

The combination with the circular bobbin-holder having an open side and a rim, the surfaces being inclined in both directions to the periphery and having an opening through the periphery for the thread and a central circular support or tube, of a sleeve around such central support and means for holding the same permanently in position and allowing it to rotate freely, such sleeve being adapted to receive and fit tightly the paper tube of the thread-bobbin so as to hold such thread-bobbin within the bobbin-holder as the thread is drawn off at the periphery through the opening, substantially as set forth.

Signed by me this 22d day of July, 1895.

H. A. BATES.

Witnesses:

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 S. T. HAVILAND.