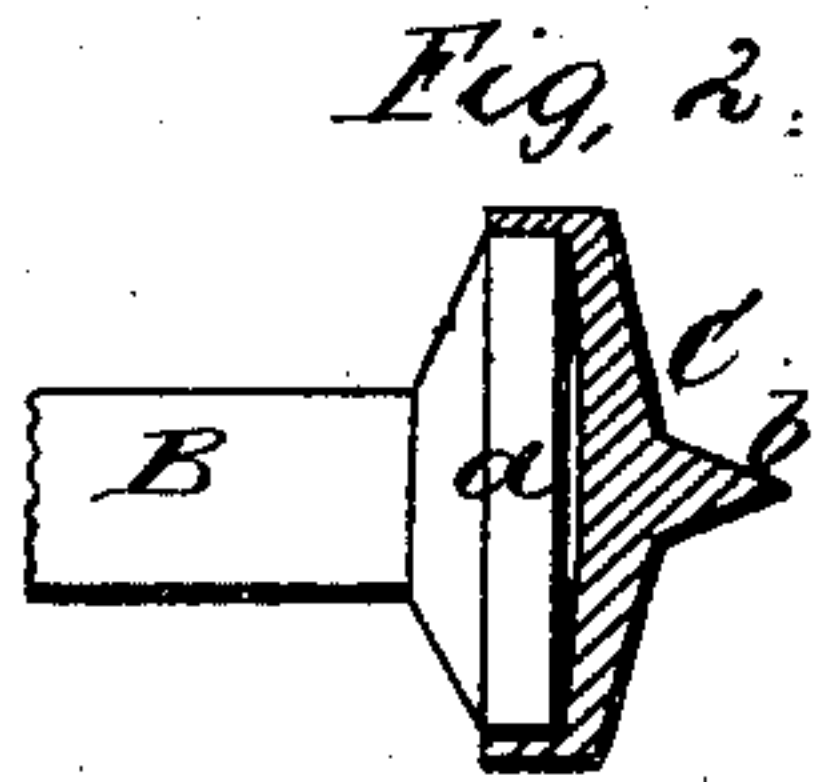
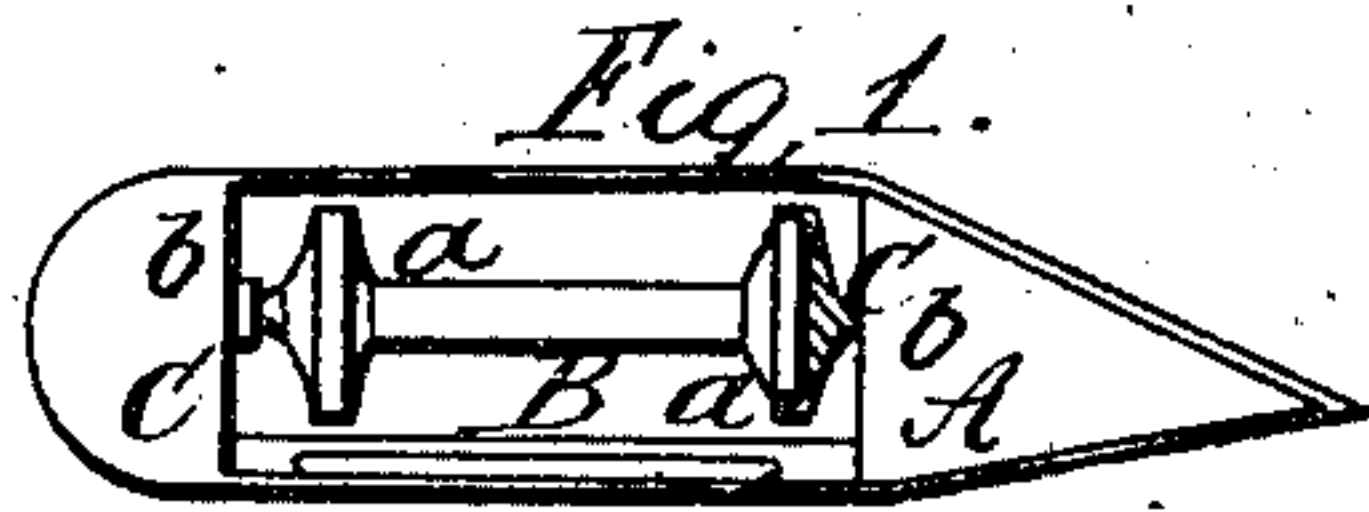


No. 78,057.

PATENTED MAY 19, 1868.

D. M. CHURCH.
SHUTTLE FOR SEWING MACHINES;



Witnesses,

Dr. C. Ashurst
Wm A Morgan

Inventor,

D. M. Church
per Munn & Co
Attorneys

United States Patent Office.

D. M. CHURCH, OF BIRMINGHAM, CONNECTICUT, ASSIGNOR TO HIMSELF,
WILLIAM T. BEARD, AND T. E. BEARD, OF THE SAME PLACE.

Letters Patent No. 78,057, dated May 19, 1868.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, D. M. CHURCH, of Birmingham, in the county of New Haven, and State of Connecticut, have invented a new and useful Improvement in Bobbins for the Shuttles of Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

At present the bobbins of the shuttles of sewing-machines are filled by the operators themselves, the bobbin being placed on one end of the driving or cam-shaft of the sewing-machine, or placed in a separate winder, and the thread guiding upon the bobbin by hand from the spool.

By this means the thread cannot be wound evenly on the bobbin, and, consequently, when the machine is in operation, the tension of the bobbin-thread will vary materially, and often cause the machine to work very imperfectly.

The object of my invention is to obviate the necessity of the operator's winding the thread on the bobbins, and have that work performed by the thread-manufacturers, who do it by machinery, and in a perfect manner, so that the difficulty above alluded to will be avoided.

To accomplish this end, the cost of the thread on the bobbins must not exceed that of the thread on the ordinary spools.

The cost of winding the thread on the bobbins will not exceed that of winding the thread on the spools, but the bobbins are much more expensive than the spools, the former being made of metal, and having their ends provided with nicely-turned points to fit in the shuttle, and admit of the bobbin turning in the latter.

In order to avoid the expense of the bobbins, I construct the latter without the pointed ends, and have them of wood or other material, and turned like an ordinary spool, but, of course, much smaller, corresponding in size to the body of an ordinary bobbin, and have the points which are at the ends of the ordinary bobbin, made or turned on detached caps, between which my bobbin may be inserted.

By this means I reduce the cost of the bobbin as low as that of an ordinary spool, and therefore accomplish the end desired.

In the accompanying sheet of drawings—

Figure 1 is an inverted plan of an ordinary sewing-machine shuttle, provided with a bobbin of my improvement.

Figure 2, a detached and enlarged view of one end of the bobbin, with the cap, in section, fitted thereon.

Similar letters of reference indicate corresponding parts.

A represents the shuttle of a sewing-machine, constructed in the ordinary way, and B is my improved bobbin, which is turned like an ordinary spool, and of wood or other suitable cheap material.

C C represent metal caps, which are made in the form of sockets, so that the threads *a* of the bobbin may be fitted in them, as shown clearly in fig. 2.

These caps are formed with centre points *b* to fit into recesses in the shuttle, and admit of the bobbin turning in the shuttle equally as free as those of ordinary construction.

From the above description it will be seen that when a bobbin, B, becomes empty it may be readily detached from the caps C C, and a filled bobbin inserted in its place.

Thus it will be seen that bobbins for sewing-machine shuttles may be obtained with the thread wound upon them mechanically, and consequently in a perfect manner, without any additional cost over the thread now purchased on spools.

I claim as new, and desire to secure by Letters Patent—

A bobbin for sewing-machine shuttles, provided with detachable ends or caps C C, having centre points *b*, substantially in the manner as and for the purpose set forth.

D. M. CHURCH.

Witnesses:

E. C. STITT,

S. B. PLATT.