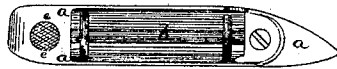


T. COLSTON.  
Sewing-Machine Shuttle.

No. 112,125.

Patented Feb. 28, 1871.

*Fig. 1.*



*Fig. 2.*



Witnesses.

Theo. G. Ellis.

Geo. H. Archibald,

Inventor.

Theodore Colston

# UNITED STATES PATENT OFFICE.

THEODORE COLSTON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO HIMSELF AND CHARLES E. BILLINGS, OF SAME PLACE.

## IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **112,125**, dated February 28, 1871.

*To all whom it may concern:*

Be it known that I, THEODORE COLSTON, of Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Sewing-Machine Shut-tles; and I do hereby declare that the follow-ing is a full, clear, and exact description there-of, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the let-ters of reference marked thereon.

Like letters in the figures indicate the same parts.

My invention consists in a new method of holding and fastening the bobbin into the shut-tle of a sewing-machine, and which shall allow of its being removed and replaced with facil-ity.

It has for its object a simpler and cheaper manner of arranging the socket and spring at one end of the shuttle than has heretofore been used.

In the drawings, Figure 1 is a view of the open side of the shuttle, which passes next to the needle, and shows the bobbin in its place in the interior. Fig. 2 is a horizontal section through the middle of the shuttle, and shows the construction of the interior parts.

*a* is the body of the shuttle, which carries the bobbin. *b* is the bobbin for holding the thread which is wound upon it. This bobbin is removed from the shuttle to wind the thread and replace it for use. To facilitate this one end of the spindle of the bobbin rests in a slid-ing socket, *c*, which is held in its place against the end of the spindle by means of the rubber spring *d*. The sliding socket *c* has upon its inner end a flat head, which is pressed upon by the rubber, and which likewise serves to keep the socket in place when the bobbin

is removed by resting against the shell or wall of the shuttle between the rubber spring and the open bobbin-chamber. The rubber spring *d* has one side flattened to receive the head of the socket *c*. A hole, *e e*, is bored from the outside of the shuttle for the reception of the rubber spring *d*. The sliding socket *c* is inserted through the hole *e* and the spring *d* placed in position back of it, filling the hole, and all the parts are held in place without any of the screw-holdings and tapped holes re-quired when the spring is inserted from the inside of the shuttle.

The operation of my invention is as follows: When it is desired to remove the bobbin it is pressed against the socket *c*, which allows the other end of the spindle to escape from its socket, so that it can be lifted out. When it is desired to replace the bobbin one end is in-serted in the socket *c* and pressed against the spring until the other end can enter its socket, when the spring forces it into place.

What I claim as my invention is—

1. The spring of rubber or other elastic ma-terial inserted from the outside of the shuttle through a hole at right angles to the axis of the bobbin for the purpose of pressing the slid-ing socket *c* against the end of the bobbin-spindle, substantially as described.

2. The herein-described arrangement of the devices *c* and *d* within the shuttle, whereby they can be placed in position from the outside through an aperture, which does not require to be closed up to prevent the spring from es-caping.

THEODORE COLSTON.

Witnesses:

THEO. G. ELLIS,  
GEO. W. ARCHIBALD.