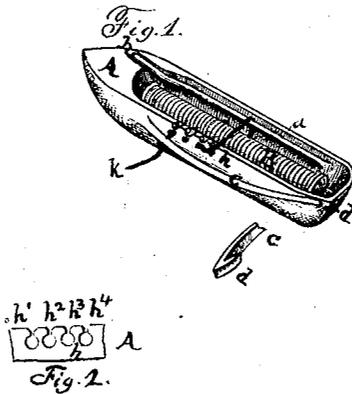


H. C. GOODRICH.

Improvement in Shuttles for Sewing Machines.

No. 123,990.

Patented Feb. 27, 1872.



Witnesses  
L. L. Bond  
O. W. Bond

Inventor.  
Harry C. Goodrich

# UNITED STATES PATENT OFFICE.

HARRY C. GOODRICH, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 123,990, dated February 27, 1872.

### SPECIFICATION.

I, HARRY C. GOODRICH, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sewing-Machine Shuttles, of which the following is a full description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of a shuttle adapted to a Singer machine; Fig. 2, an enlarged view of a section of the side of the shuttle shown at Fig. 1.

The nature of my invention consists in constructing the openings and distributing-bars, as hereinafter described, so that a shuttle can be threaded by manipulating the thread without running the end through the holes and around the bars.

In the drawing, A represents a shuttle-case, of any suitable construction; B, an ordinary bobbin; *a*, the distributing-bar; *b*, the opening for the detached end of the distributing-bar; *c*, a shuttle-thread spring; *d*, a beveled hook or stop at the end of *c*, shown in detail with Fig. 1; *h*, tension-holes in case A. One end of the distributing-bar is disconnected from the shuttle, and rests in a notch or opening, *b*, in the end of the shuttle-case, and it is

rounded off, so that the thread may be quickly drawn under its end and about the bar. The holes *e*, *g*, and *h* are made to open out at the top by a small slit or passage, as shown, so that the thread can be drawn into them from the top without putting the end of the thread through the holes.

To thread the shuttle, the bobbin is inserted in the usual way and a short portion of the thread drawn off; it is then drawn under the end of *a* and carried across and drawn down into *h*<sup>4</sup>, then into *h*<sup>2</sup> or *h*<sup>3</sup>, and out at *h*<sup>1</sup>; it is then brought around the end of *c* and drawn under and past the beveled hook *d*, when it is ready for use.

It will be seen that by this method of attaching the bars and making the holes a shuttle can be threaded without letting go of the thread after it has been grasped by the hand.

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

In combination with the shuttle A, the open eyes *h*, distributing-bar *a*, and opening *b* and spring-bar *c*, provided with the beveled hook *d*, substantially as and for the purposes specified.

HARRY C. GOODRICH.

Witnesses:

L. L. BOND,  
A. W. BOND.