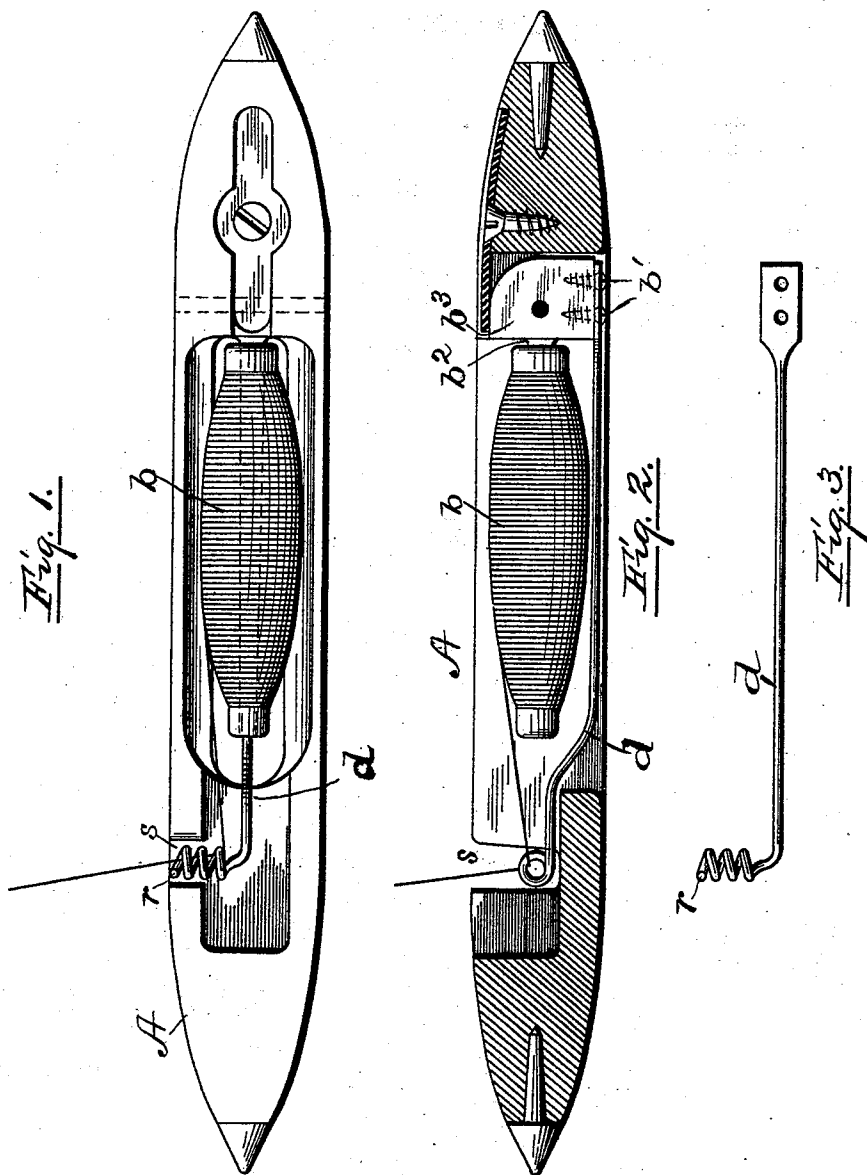


(No Model.)

R. ORR.
THREAD GUIDE FOR LOOM SHUTTLES.

No. 499,308.

Patented June 13, 1893.



Witnesses.

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UNITED STATES PATENT OFFICE.

RALPH ORR, OF PAWTUCKET, RHODE ISLAND.

THREAD-GUIDE FOR LOOM-SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 499,308, dated June 13, 1893.

Application filed August 1, 1892. Serial No. 441,895. (No model.)

To all whom it may concern:

Be it known that I, RALPH ORR, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Thread-Guides for Loom-Shuttles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a guide for passing the thread from the bobbin through a shuttle, and I accomplish this by the means illustrated in the accompanying drawings in which—

Figure 1 is a plan of shuttle in elevation with the bobbin and guide attached thereto in position; Fig. 2 a section of shuttle in side elevation; Fig. 3 the wire guide.

Similar letters refer to similar parts throughout the views.

In Fig. 1—A—designates a modern shuttle body, it being a sort of wooden carriage tapering at each end and hollowed out in the middle for the reception of the bobbin or pirn on which the weft is wound.

—b—designates the bobbin with weft upon same. The bobbin spindle b^2 is pivoted within the base of the shuttle body in the manner well known to those who make or use the same and need not be described here.

—d—designates my guide, being a piece of steel spring wire, preferably, firmly secured to the spindle head b^3 (see Fig. 2) in any proper manner, as by screws —b'— —b'— and extending in the same direction as the bobbin, care being taken to allow sufficient space for the placing of the cop upon the bobbin. This guide is made of sufficient length to reach beyond the weft on the bobbin and is then at its free end wound into one or more spirals τ , preferably three, which form the means of guiding the thread from the shuttle to the web. In the side of the shuttle body is made a notch —s— into which the spiral end of the guide fits and is held firmly in place by the

spring of the wire when the spindle having the bobbin is shut within the shuttle.

The method of using my shuttle and bobbin is as follows: The end of the weft thread is passed from the bobbin and wound in the spiral end of the wire guide, and this may be done before or after the bobbin is in position in the shuttle, and the end of the thread is then conducted to the web.

The great objection to the shuttle as at present used is that the thread has to be passed through an eye in the shuttle, and then passed out through a hole at an angle to said eye, and the means employed by the weaver is to suck the thread through the hole by applying his mouth to the same.

The advantages which I claim for my guide are: first, a saving of time in passing out the thread; second, the saving of waste, since by the old method the thread had to be bunched to force the same through the eye and hole; third, my method is more healthful and cleaner. The trouble found in employing thread guides hitherto has been that the sharp blow received by the shuttle in being driven back and forth has displaced any guide, but by the employment of my device as described this objection is obviated.

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

In a loom shuttle, the combination, with the body, A, provided with the notch, s, in one side thereof adjacent the free end of the spindle, of the pivoted spindle, a wire guide, d, secured at one end to the spindle head and having at its free end a coil which rests in the notch in the side of the shuttle body when the spindle is down, and through which the weft thread is adapted to be delivered substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of subscribing witnesses.

RALPH ORR.

In presence of—

WM. W. BLODGETT,
E. W. BLODGETT.