

H. Wells,

Shuttle for Loom

No. 103,400.

Patented May 24, 1870.

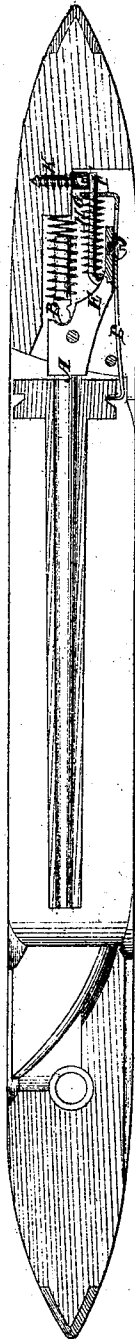


Fig. 1.

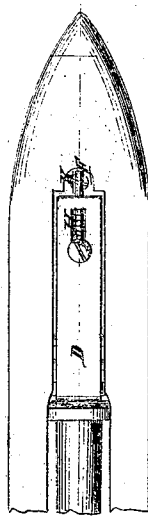


Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

HORACE WELLS, OF HOPKINTON, RHODE ISLAND.

IMPROVEMENT IN SHUTTLES FOR LOOMS.

Specification forming part of Letters Patent No. **103,400**, dated May 24, 1870.

To all whom it may concern:

Be it known that I, HORACE WELLS, of Hopkinton, in the county of Washington and State of Rhode Island, have invented a new and useful Improvement in Loom-Shuttles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in shuttles; and it consists in arranging the spool or bobbin-retaining spring, or other device which holds the bobbin on the spindle, so that when the shuttle is struck by the picker and set in motion in one direction, the spring or holding device will yield to the force of the inertia of the bobbin and set it more gradually in motion, thereby preventing the jerking of the thread off the spool or bobbin, now so common, when set in motion in the direction having that tendency.

Figure 1 is a longitudinal section of a shuttle provided with my improvement, and Fig. 2 is a plan of a part of the bottom of the same.

A is the spindle, pivoted to the shuttle in the usual way, and provided with the spring-pusher B; C, the bobbin; and D, the spring for holding it on the spindle when the picker strikes the end opposite the free end of the spindle. Instead of rigidly connecting this spring to the rear projecting arm, E, of the spindle, I connect it so that it will slide back and forth on the said arm a short distance, and

I bend up the rear end and fit it, at G, to slide on a rod, F, connected to the upper side of the arm E, and extending rearward parallel with the horizontal part of the spring. This rod is provided with a coiled spring, H, which presses the spring back and holds it and the bobbin in the required position, but which will yield when the shuttle receives the blow of the picker and allow the bobbin to be started less violently than the shuttle is, thereby preventing the yarn from flying off the spindle. This projecting rod F affords a ready means for the application of an adjusting screw stop, K, to act in conjunction with the spring-pusher B, for holding the spindle parallel with the horizontal plane of the axis of the shuttle, and I propose to provide for adjusting it in this way.

I may use a flat or other spring in the place of the coiled spring H.

The arm E of the spindle may be extended and arranged to bear against the stop K instead of the rod F, to operate in like manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the spindle, of a sliding spring holding the bobbin, and the spring H, substantially as specified.

The above specification of my invention signed by me this 28th day of February, 1870.

HORACE WELLS.

Witnesses:

GEO. W. MABEE,

ALEX. F. ROBERTS.