

W. M. PARKER.
Loom-Shuttles.

No. 148,134.

Patented March 3, 1874.

Fig. 1.

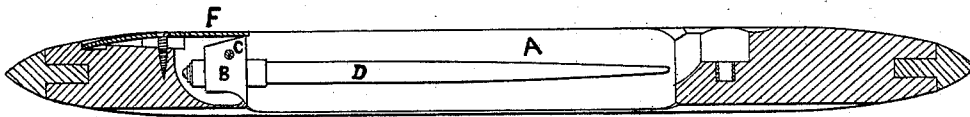
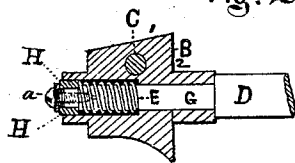


Fig. 2.



WITNESSES.

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WILLIAM M. PARKER, OF MEDFORD, MASSACHUSETTS, ASSIGNOR TO ALLEN WILSON, OF NASHUA, NEW HAMPSHIRE.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. 148,134, dated March 3, 1874; application filed October 11, 1873.

To all whom it may concern:

Be it known that I, WILLIAM M. PARKER, of the town of Medford, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Loom-Shuttles, of which the following is a specification:

The object of my invention is to prevent the cop from starting forward on the shuttle-spindle in the process of weaving, which I do by providing the shuttle with separable spindle and spindle-head, the spindle moving in bearings in the head, as constructed, and controlled by a spring, all as hereinafter described.

Figure 1 is a longitudinal section of the body of a loom-shuttle with my improved spindle and spindle-head, of which a plan view is given. Fig. 2 is a longitudinal central section of the several parts of my invention, except the spiral spring, of which a plan view is given.

A is the body or shell of the shuttle. B is the spindle-head, which is held in position by pin C, on which it turns, and which is provided with the faces 1 2, against which bears spring F when the spindle is raised up out of the body of the shuttle, or is in working position to retain it in these positions. D is the spindle, having a shoulder at the base of that part which carries the cop. The back projection from the shoulder or heel G passes through the head B, bringing the shoulder of the spindle against the forward end thereof. The longitudinal bore in head B, through which the heel of the spindle passes, is counterbored from the rear end to near the forward end, leaving a bearing forward for the heel G of spindle D. E is a spiral spring, nearly filling the counterbore in head B, being passed into it, from the rear, onto the heel or projection G, the forward end of it resting on the shoulder formed by the counterbore. H is a bearing, a central section of which is shown in Fig. 2, which is placed on the end of the heel or projection G, and held there by screw a. It is fitted to slide smoothly in the counterbore, holding spring E in position, and serving as

a guide and bearing for the end of the heel or projection G of spindle D. Spring E is placed in the counterbore, between the shoulder in head B, at the termination of the counterbore, and the forward end of bearing H, under sufficient compression to hold the shoulder of spindle D firmly against the forward end of spindle-head B, except when the momentum of the spindle and cop, upon the sudden stopping of the shuttle when moving in the direction of the point of the spindle, is sufficient to partially overcome the force of spring E, when the spindle will slide forward partly out of the spindle-head B, compressing spring E, by which it is stopped in its forward movement, and brought back to its former position. The yielding of the spring, which allows the spindle to move forward a short distance with the cop, and the gradual stopping of the same by the increasing tension of the spring, so far overcomes the momentum of the cop that it will not start forward on the spindle, and the recoil of the spring causes the shoulder of the spindle to strike back against the forward part of the spindle-head with such force that the cop, if from any cause it has become loose on the spindle, is driven back and tightened upon it by the force of its own momentum acting in the direction of the base of the spindle. The shoulder of spindle D being held back by spring E against the forward end of spindle-head B, to which it is closely fitted, a tight joint is formed, protecting the working parts from the fine dust with which the web is always filled on account of the rapid changes in the warp.

I claim—

The combination, with a loom-shuttle, of the pivoted spindle-head B, having faces 1 2 and a bearing for spindle D, the shouldered spindle D, spring E, and the detachable sliding bearing H, all constructed and operating substantially as described.

Witnesses: WILLIAM M. PARKER.

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