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SHUTTLE FOR NARROW WARE LOOMS.

No. 187,369.

Patented Feb. 13, 1877.

Fig. 1.

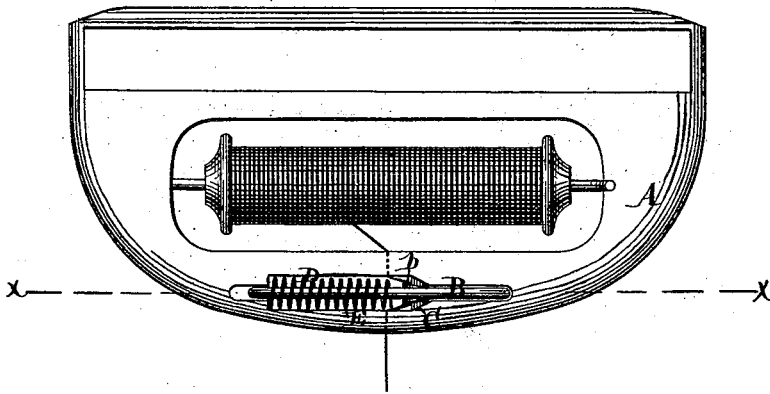
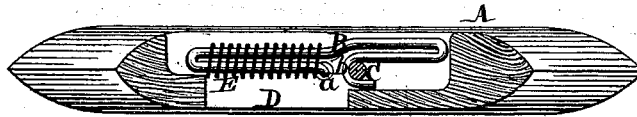


Fig. 2.



Witnesses.

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IMPROVEMENT IN SHUTTLES FOR NARROW-WARE LOOMS.

Specification forming part of Letters Patent No. **187,369**, dated February 13, 1877; application filed January 11, 1877.

To all whom it may concern:

Be it known that we, GEORGE FISCHER, GEORGE F. KEK, and JAMES B. SHARP, of the city, county, and State of New York, have invented a new and useful Improvement in Shuttles for Looms, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan or top view of a shuttle containing our improvement. Fig. 2 is a longitudinal section thereof in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts. This invention relates to certain improvements in tension devices for shuttles used in narrow-ware looms; and consists in combining with the body of a shuttle having an eye and a recess, a fixed cross-bar and a longitudinal pressure-slide, both arranged in said recess as hereinafter described, the said pressure-slide having a hook, which partly embraces and bears against the fixed cross-bar, so that the filling-thread can be brought within said hook, between the same and the fixed bar, and thus form a tension device for the thread.

In the drawing, the letter A designates a shuttle of the kind commonly used in looms for weaving narrow fabrics. B is the pressure-slide, and C is a stationary bar, which parts are arranged in a recess, D, formed on the front part of the shuttle A at the point where the eye *a* is formed, the recess being made to intersect the eye. The stationary bar C extends across the recess D, and is situated adjacent to the eye *a*.

The pressure-slide B consists of a piece of wire bent at one end to form a hook, *b*, and which is subjected to the action of a spring, E, having a tendency to force said slide toward the bar.

When the filling-thread is run from the spool through the eye *a*, the pressure-slide B is pushed or forced back by hand so that the thread is caught in the hook *b*, and hence when the pressure-slide B is released the thread is forced up against the stationary bar C and is held with a uniform tension.

The pressure-slide B is so arranged that it can be removed if desirable; and, moreover, if preferred, it can be made of a solid piece of metal or other material of the general shape shown, instead of wire.

It will be seen that the filling-thread can be brought within the hook *b* of the pressure-slide with great facility, and hence a very important advantage is obtained by our invention over the old class of tension devices.

It must be remarked that our tension device admits of various modifications—for instance, the spring itself might be made to act as the pressure-slide, the thread being passed through between the end of the spring and the stationary bar; but in this case the stationary bar must be constructed in the shape of a fork so as to support the filling-thread, whereas in the example shown in the drawing the pressure-slide itself forms a support for said thread, as previously stated.

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

1. The shuttle A, constructed with the eye *a*, and recess D, intersecting said eye with a fixed bar, C, secured transversely in said recess, and with a longitudinal horizontally-moving pressure-slide bearing against said cross-bar, substantially as described.

2. The combination, with a loom-shuttle body, constructed with an eye, *a*, and a recess, D, of the fixed bar C, arranged transversely across the opening D, and adjacent to the eye *a*, the pressure-slide B, arranged longitudinally in said recess, and having a hook, *b*, bearing against the cross-bar C, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 9th day of January, 1877.

GEORGE FISCHER. [L. S.]
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Witnesses:

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