

C. L. F. PFEFFERKORN & W. AUST.

Loom-Shuttles.

No. 143,927.

Patented Oct. 21, 1873.

Fig. 1.

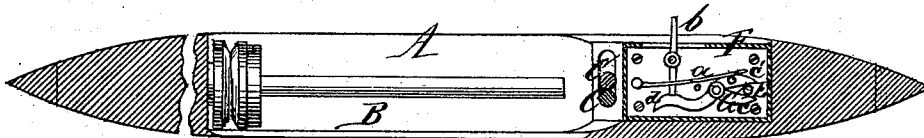
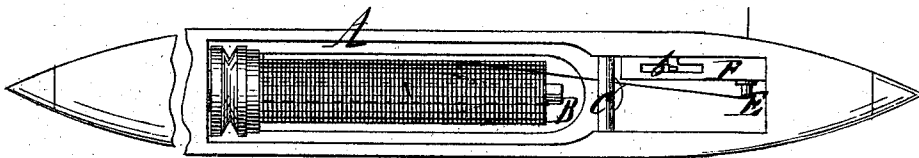


Fig. 2.



Witnesses.

Ernst Bilhuber.
Henry Gentner.

Inventors.

Carl L. Ferdinand Pfefferkorn
Wilhelm Aust
per
Van Santvoord & Haupt
Attors

UNITED STATES PATENT OFFICE.

CARL L. F. PFEFFERKORN AND WILHELM AUST, OF MANCHESTER, N. H.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. 143,927, dated October 21, 1873; application filed August 20, 1873.

To all whom it may concern:

Be it known that we, CARL L. FERDINAND PFEFFERKORN and WILHELM AUST, both of Manchester, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Improvement in Shuttles for Looms; and we do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of our invention. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to that class of loom-shuttles which are provided with instruments for cutting the weft-thread, said cutting-instrument being operated by a stop-lever when an obstruction occurs in the shed.

Our invention consists in forming the cutting-instrument of two jaws, which are pivoted together, one of said jaws being operated upon by a spring and formed with an extension having a curved bearing, upon which operates a pivoted stop-lever, as hereinafter more fully set forth.

In the drawing, the letter A designates a shuttle, of the ordinary form and construction of fly-shuttles, provided with a quill, B, and an eye, E. C C represent tension-rollers, the lower one of which is stationary, while the upper one presses down upon the lower by its inherent gravity. The thread is passed through between the two rollers, and it is kept at a uniform tension, and it is drawn off evenly from the cop, so that the operation of the loom is not interrupted until the weft-thread gives out or is cut off.

On the inside of our shuttle is secured a case, F, which is provided with a passage forming a continuation of the eye E, and in said case is placed a cutting-instrument, G, which is made in the form of shears, and which is so situated that the weft-thread in its passage to the eye of the shuttle has to pass through between the jaws of the shears, as seen in Fig. 1 of the drawing.

This cutting-instrument is composed of a movable and a fixed jaw, *c c'*, the movable jaw *c'* being provided with an extension, *d*, having a curved bearing or projection, upon which traverses the pivoted stop-lever *b* for holding the movable jaw out of contact with the fixed jaw *c* until the stop-lever is turned and the jaw forced down by the action of a spring bearing directly upon the back of the movable jaw, so that when the stop-lever is thrown in the position shown the movable jaw is forced out against the action of the spring, whereby the weft-thread can pass the eye E without obstruction.

If the shuttle is thrown through the shed and the stop-lever *b* meets with no obstruction, the cutting-instrument remains in the position shown in Fig. 1, and the weft-thread is thrown into the warp, the same as it is from an ordinary shuttle. But if there are loops in the warp, or if any other irregularity exists in the shed, the stop-lever on catching up against such loops or other obstruction is tripped, and the cutting-instrument being impelled by its spring *a* cuts the weft-thread, so that by the action of the ordinary stop mechanism the loom is stopped.

By this mechanism pick-outs are effectually prevented, and much time and material are saved.

One man is enabled to attend to six looms containing our improved shuttle with the same ease with which he now attends to four looms; and, furthermore, our shuttle is so constructed that it is not liable to get out of order, and that it can be used for a long time without requiring any repairs.

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

The movable jaw *c'*, having the extension *d* formed with a curved bearing-surface, in combination with the fixed jaw *c*, the spring *a*, and pivoted lever *b*, all constructed and arranged and confined within the metal case F, as herein shown and described.

CARL L. FERDINAND PFEFFERKORN.
WILHELM AUST.

Witnesses:

ISAAC L. HEATH,
JOHN B. MILLS.