A. HALLOWELL.

LOOM-SHUTTLE.

No. 186,674. Patented Jan. 30, 1877.

Fig. 1.

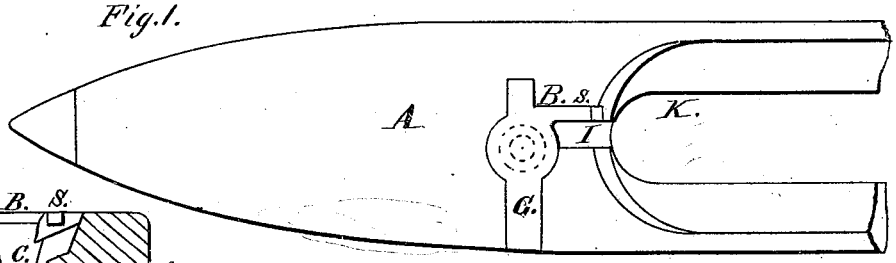


Fig. 3.

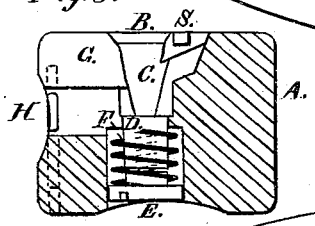


Fig. 2.

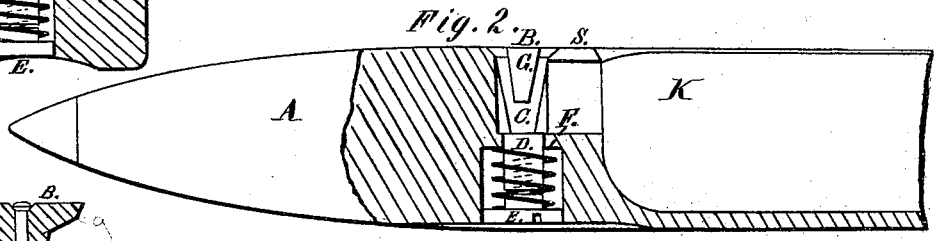


Fig. 6.

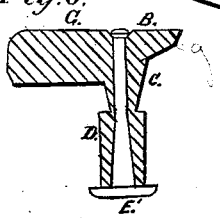


Fig. 4.

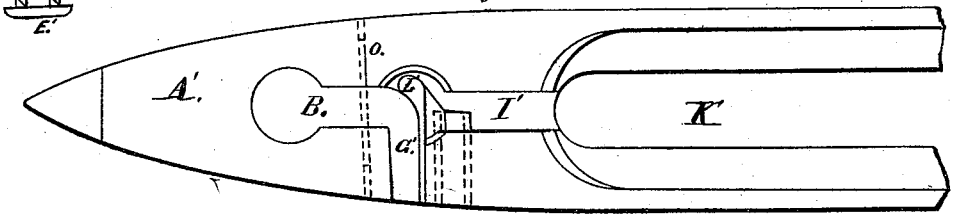
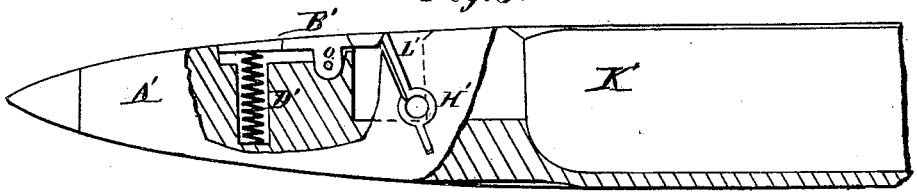


Fig. 5.



Witnesses.
Albert M. Moore.
Nathaniel Hill

Inventor.
Albert Hallowell.

UNITED STATES PATENT OFFICE.

ALBERT HALLOWELL, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **186,674**, dated January 30, 1877; application filed May 1, 1876.

To all whom it may concern:

Be it known that I, ALBERT HALLOWELL, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented new and useful Improvements in Loom-Shuttles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to self-threading devices; and consists in closing the threading-slot, as hereinafter described.

Figures 1 and 4 are plans of the delivery end of a shuttle; Fig. 2, a vertical longitudinal section of the same; Figs. 3 and 6, vertical cross-sections through the eye of the shuttle; and Fig. 5, a side view of a shuttle with a part broken away to show the internal mechanism. Figs. 1, 2, 3, and 6 show the best form of my invention.

A is the body of the shuttle. B is a metallic plug of the shape shown in Figs. 2 and 3, being a cylinder, D, surmounted by the frustum of an inverted cone, C. A cap-screw, E, is screwed into the lower end of said plug, the head of the screw being larger than the cylinder D. A flange at the top of the plug, and a spiral spring, F, around the cylinder D, between the head of the screw and the shoulder in the wood A, keeps the top of the plug flush with the top of the shuttle. On the side of the plug, nearest the eye H, is a wedge-shaped piece, G, thickest at the top, and cast in one piece with said plug. The wedge G fills a slot cut from the top of the shuttle to the eye H. A slot, I, extends from the chamber K to the plug. A wing, S, on the plug B prevents the thread from catching between the cone C and the wood of the shuttle.

By pressing the screw upward, the plug is lifted, and the thread from the cop may be passed through the slot I, and on the farther side of the plug down through the wedge-shaped slot into the eye. On taking the finger from the screw, the plug and wedge fly down into place flush with the top and side of the shuttle, entirely closing the slot into the eye of the shuttle.

In Figs. 4 and 5, B′ represents a lever, pivoted at O, and having an arm, G′, which extends from said lever to the side of the shuttle at the left of the eye H′. The outer end of the lever is pressed upward by the spiral spring D′. A plate, L, cast in one piece with a slotted eye, H′, is inserted in the side of the shuttle, in the position shown in the drawings. An ear, Fig. 4, at the top of the inner end of the plate L, serves to catch the thread over in threading the shuttle. The adjacent edges of the arm G′ and the plate L are beveled to fit each other accurately.

By pressing on the left end of the lever the arm is raised, so as to leave a slight opening between said arm and the eye-plate, and the thread from the cop is then passed over the ear and plate down into the eye H′. The lever, when released, springs down against the plate, and closes the opening between the arm and the eye-plate.

The lever, the plug and wedge, and the screw are all finished flush with the wooden body of the shuttle, so that there is nothing to catch the warp-threads when the shuttle is thrown in the loom. Instead of the screw E, a rivet, E′, running through the plug B and headed on the top of the plug B, may be used, as shown in Fig. 6.

I claim as my invention—

1. A loom-shuttle provided with a threading-slot capable of being opened and closed, as and for the purpose described.

2. A loom-shuttle provided with an automatically-closing threading-slot, as and for the purpose described.

3. The combination of the plug B, provided with the wedge G and the spring F, as and for the purpose described.

ALBERT HALLOWELL.

Witnesses:

ALBERT M. MOORE,

NATHANIEL HILL.