J. JOHNSTON.

LOOM SHUTTLE.

APPLICATION FILED DEC. 23, 1909.

964,872. Patented July 19, 1910.

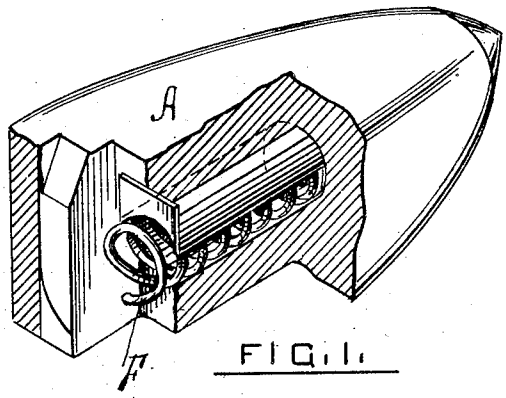

FIG. 1.

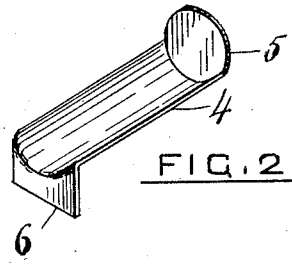

FIG. 2.

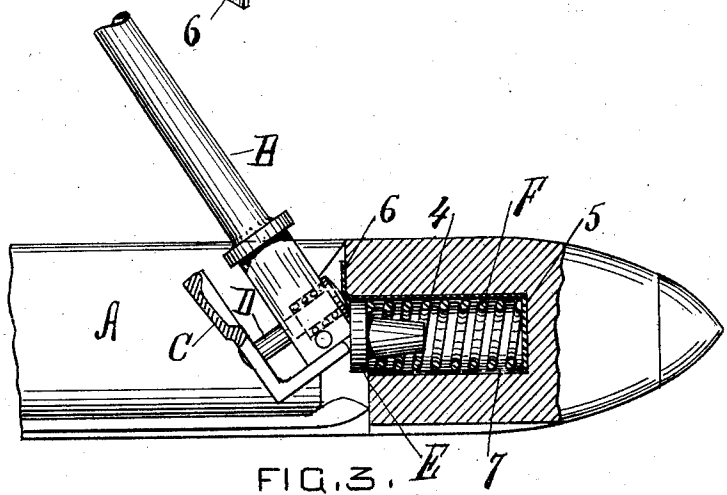

FIG. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN JOHNSTON, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR TO WOONSOCKET SHUTTLE CO., OF WOONSOCKET, RHODE ISLAND.

LOOM-SHUTTLE.

964,872. Specification of Letters Patent. **Patented July 19, 1910.**

Application filed December 23, 1909. Serial No. 534,616.

To all whom it may concern:

Be it known that I, JOHN JOHNSTON, of Woonsocket, in the county of Providence and State of Rhode Island, have invented a certain new and useful Improvement in Loom-Shuttles, of which the following is a description sufficiently full, clear, and exact to enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of the spindle end of a loom shuttle, Fig. 2 is a perspective view of my improved wear plate, and Fig. 3 is a sectional view of the spindle end of a loom shuttle, showing the various parts in operative position.

My invention relates to means for preventing the wear of the operating parts of the spindle upon the material of which the shuttle is constructed.

The nature of the improvement will be readily understood from the drawings and the description thereof, forming part of this specification.

Like letters and figures indicate corresponding parts in the several figures of the drawings.

In the drawings, A indicates the body of the shuttle, B the bobbin spindle, C the bobbin lock, D the pin for operating the bobbin lock, E a spring actuated pin, and F a coiled spring, the above parts being common to a well-known commercial form of shuttle.

In shuttles having the above-named operative parts two defects are noticeable, one of which is that the spring F abutting upon the wood of the shuttle body will soon wear the same, thereby reducing the efficiency of the spring, and the other is that in the use of the shuttle to remove and replace the bobbins, on the spindle the head of the pin D wears on the wood of the shuttle until it is worn away to such an extent that the lock will not release the bobbin. To overcome these defects, I introduce a metal wearing plate which forms the object of this invention. The wearing plate consists of a concavo-convex arm 4 provided with the circular abutment 5 at the inner end and the upturned flange 6 at the outer end. This wearing plate is inserted into the hole 7 formed in the body of the shuttle. The spring F is then placed in the hole, the back end of the spring abutting against the abutment 5 of the wearing plate. The pin E is then placed in position and the spindle B with the bobbin lock placed and pinned in position, as shown in Fig. 3 of the drawings. As will be readily seen from the drawings all the wear of the movable parts will be provided for, thereby giving much longer life to the shuttle.

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

A wear plate for bobbins composed of a trough-like body of concavo-convex cross section, a disk forming an abutment at one end of said body extending outwardly therefrom and projecting above the edges of the longitudinal sides of the trough-like body, and an outturned flange at the opposite end of the body extending in an opposite direction from said abutment, the apex formed at the junction of the flange and body forming an abutment to engage the shuttle pin, said body, said disk and said flange all being of the same thickness.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN JOHNSTON.

Witnesses:

ADA E. HAGERTY,

J. A. MILLER.