J. LA PALME.

LOOM SHUTTLE.

APPLICATION FILED JULY 8, 1909.

975,051.

Patented Nov. 8, 1910.

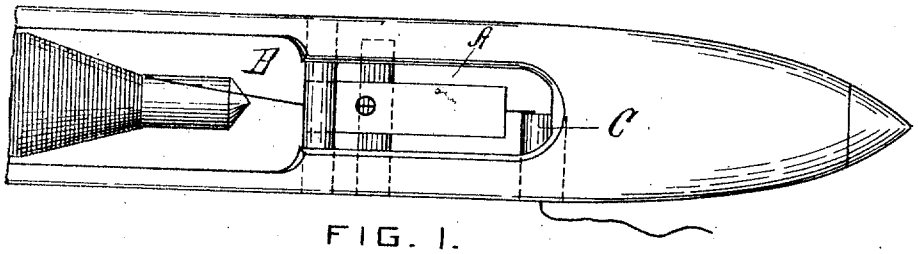


FIG. 1.

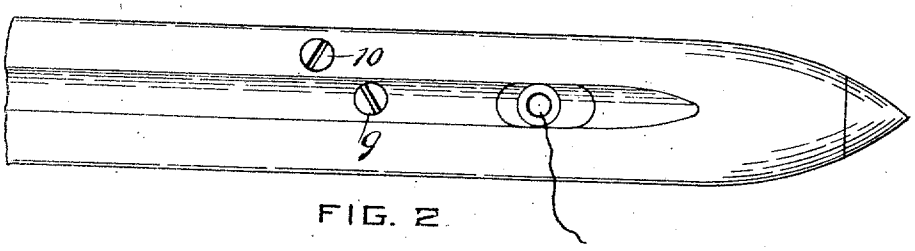


FIG. 2.

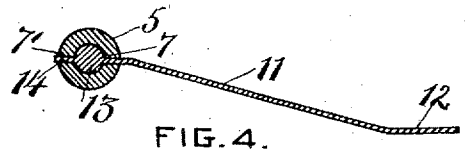


FIG. 4.

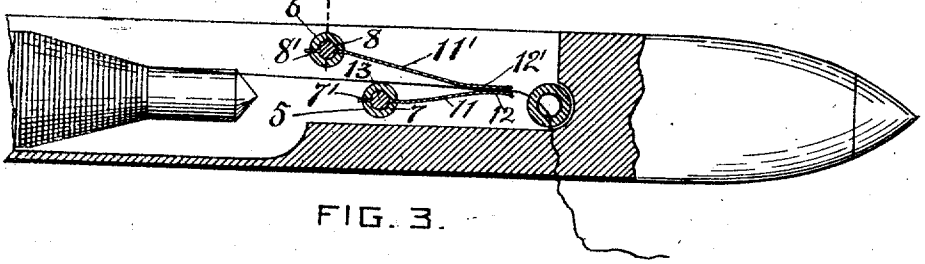


FIG. 3.

WITNESSES:

Ada C. Fogerty

Elsa B. Dapia

INVENTOR:

John La Palme

by Joseph A. Miller

Atty

UNITED STATES PATENT OFFICE.

JOHN LA PALME, OF CENTRAL FALLS, RHODE ISLAND.

LOOM-SHUTTLE.

975,051. Specification of Letters Patent. Patented Nov. 8, 1910.

Application filed July 8, 1909. Serial No. 506,570.

To all whom it may concern:

Be it known that I, JOHN LA PALME, a citizen of the United States, residing at Central Falls, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Loom-Shuttles, of which the following is a specification.

The invention has reference to an improvement in loom shuttles and more particularly to an improvement in tension regulating devices for loom shuttles.

The object of the invention is to provide a loom shuttle with an elastic and adjustable tension regulating device which can be readily threaded and which will at all times maintain a uniform frictional tension upon the yarn.

The invention consists in the peculiar and novel construction of the leaf springs and the means for holding the same.

Figure 1 is a top plan view of the thread delivery end of a loom shuttle with the improvement attached thereto. Fig. 2 is a side view of the thread delivery end of a loom shuttle looking at the thread delivery eye side. Fig. 3 is a longitudinal sectional view through the delivery end of the shuttle, and Fig. 4 is a sectional view of one of the leaf springs and its support.

In the drawings, 5 indicates the lower pin and 6 indicates the upper pin. These pins are supported in the side portion of the shuttle and extend across the throat portion A of the shuttle. The throat forms a passage connecting the bobbin cavity B of the shuttle with the delivery eye C.

The pins 5 and 6 are each formed with the central holes 7 and 8, respectively, and are each split longitudinally as at 7′ and 8′ respectively, and each of the pins 5 and 6 have the slits 9 and 10 respectively.

The leaf springs 11 11′ are each formed with the flattened frictional surface 12 and 12′ respectively and with the enlargement 13 which snugly fits the hole in the pin 5 or 6 respectively, the end 14 of the spring extending through the side of the pin 5 or 6, as indicated in Fig. 4.

In setting up the structure two holes are bored in the side walls of the shuttle, the bottom leaf spring 11′ is placed in the throat of the shuttle, the pin 5 is passed through the lower hole, the enlargement 13 being entered into the hole 7 and that portion of the spring next adjacent thereto entering the split 7′. The pin is now forced across the throat of the shuttle until the open end enters the hole in the opposite side wall of the shuttle. The same procedure is followed in securing the upper leaf spring 11 to the pin 6.

It will be readily seen that after the shuttle tension device is once assembled all the parts will be firmly held in their relative positions.

In threading up the shuttle the upper spring is turned up into the position indicated in broken lines in Fig. 3, when the thread passing from the bobbin can be freely passed under the pin 6 over the pin 5 and thence to the guide eye C and through the same, after which the pin 6 is turned to bring the spring 11 in contact with the thread and exert a spring tension on same, the lower spring giving way to the desired point of resistance.

To facilitate the adjustment of the pins 5 or 6 the respective slots 9 and 10 are formed in the outer faces of said pins so that a screw driver may be used.

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

In a spring tension device for loom shuttles, the combination of a centrally longitudinally perforated pin extending across the throat of the shuttle and adjustably secured in recesses in the opposite walls thereof, said pin having oppositely disposed longitudinal slots communicating with said central perforation, and a bowed leaf spring having a straight portion at its forward extremity and an enlarged portion being equal in diameter to that of the perforation of the pin, and adapted to be received therein, each of the longitudinal slots being adapted to snugly receive a projecting portion of the spring on the opposite sides of the enlarged portion.

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

JOHN LA PALME.

Witnesses:
ADA E. HAGERTY,
J. A. MILLER.