J. LACROIX.

HAND THREADING SHUTTLE.

APPLICATION FILED JULY 24, 1911.

1,039,964. Patented Oct. 1, 1912

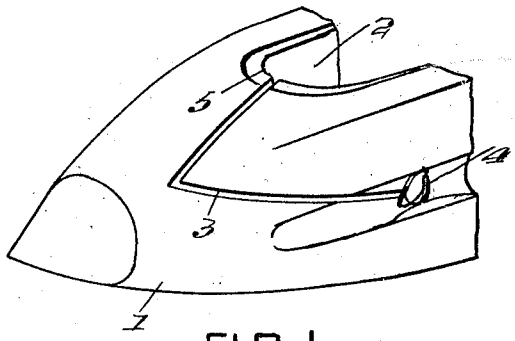

FIG. 1.

FIG. 7.

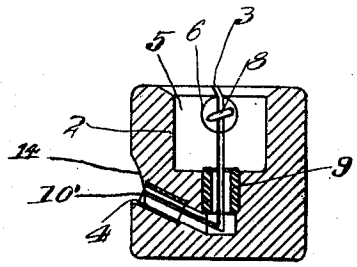

FIG. 2.

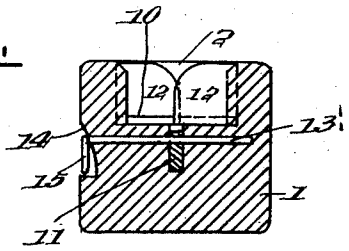

FIG. 3.

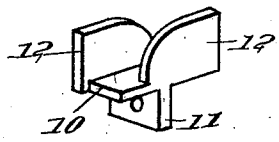

FIG. 5.

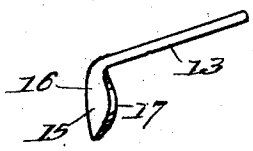

FIG. 6.

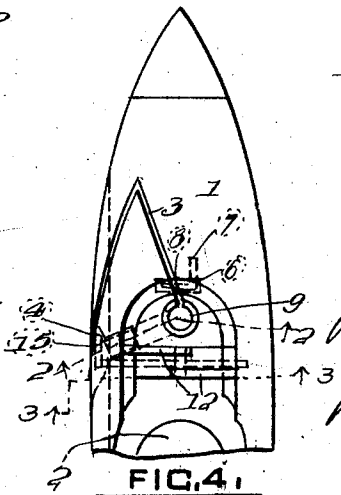

FIG. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

JOSEPH LACROIX, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR TO THE DOUBLE SPRING SHUTTLE COMPANY, OF NEW BEDFORD, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

HAND-THREADING SHUTTLE.

1,039,964. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed July 24, 1911. Serial No. 640,256.

To all whom it may concern:

Be it known that I, JOSEPH LACROIX, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Hand-Threading Shuttles, of which the following is a specification.

This invention pertains to certain new and useful improvements in hand threading shuttles, and the object of the invention is to provide an improved shuttle construction which will permit of the threading thereof with ease, and in a quick manner, and at the same time to provide an effective means for preventing disengagement of the thread.

Further and other objects will be later set forth and of themselves evidenced.

In the drawings, Figure 1 is a fragmentary perspective view of a shuttle constructed in accordance with the present invention. Fig. 2 is a section on the line 2—2 of Fig. 4. Fig. 3 is a section on the line 3—3 of Fig. 4. Fig. 4 is a fragmentary top plan view. Fig. 5 is a perspective view of the friction member. Fig. 6 is a perspective view of the friction member locking pin, and Fig. 7 is a perspective view of the pin holding the thread in the thread slot.

In accordance with the present invention the shuttle 1 is provided with a bobbin cavity 2 and a pointed slot 3 which connects the delivery eye 4 with the bobbin cavity 2. Across the slot at the front end wall 5 of the bobbin cavity 2 is formed a shallow hole or depression 6. 7 denotes a pin which is provided at one end with a hook-pointed end 8, which pin is driven into the hole or depression 6, so that the hook-pointed end lies or extends across the slot 3 in a manner clearly depicted in Fig. 2 of the drawings. In the forward end of the bobbin cavity an eye 9 is placed, which eye connects with the slot 3, and by virtue of the latter, with the delivery eye 4.

On the rear side of the eye 9 a double winged friction member of the form depicted in Fig. 5 of the drawings is located, the friction member consisting of a base plate 10 which is formed with an integral depending perforated web 11, the upper face of the plate 10 being formed with a pair of spaced wings 12, which wings extend from opposite sides of the plate 10, the wings having their outer ends projecting beyond the ends of the plate 10, as shown in Fig. 5, wherein it will also be noted that the inner ends of the wings 12 are curved and are located opposite to each other. A pin 13 is passed through the perforation of the web 11 of the friction member and is secured in the shuttle as depicted in Fig. 3 of the drawings. The outer side of the shuttle is formed with a cut-out portion 14, and the outer end of the pin 13 has a flattened end 15, one edge 16 of which is straight and the other edge 17 of which is curved. The flattened end 16 of the pin 13 extends across the slot 10′ of the delivery eye 4, but is out of contact with the same as shown in Fig. 4 of the drawings, while the pin itself by reason of its passing through the perforation in the web 11 of the friction member serves to frictionally lock the latter in position.

In operation the thread is drawn from the bobbin through the space between the inner curved ends of the wings 12 of the friction member and through the slot 3, and since the point 8 of the pin 7 is out of contact with the wall formed by the depression 6, and the latter is at a slight angle to the horizontal, the thread passes down through the eye 9 and through the slot 10′ into the delivery eye. As the flattened end 15 extends across the slot 10′ in the delivery eye but out of contact therewith, the thread will pass by the end 15 in entering the delivery eye, but will be prevented from coming out by reason of the curved edge 17 of the end 15.

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

1. In combination with a shuttle having a slot leading from the bobbin cavity to the slotted delivery eye, a horizontally disposed pin extending transversely across the shuttle and having an end thereof turned downwardly and flattened to provide a plate-like member which has its free end pointed and extending across the slot of the delivery eye so that the thread in threading of the shuttle will first engage the side of said plate-like member adjacent to said shuttle slot then pass under said pointed end thereof and finally ride-up on the opposite side of said member.

2. In a shuttle, a friction member therefor consisting of a base plate and a pair of

wings thereon arranged at opposite sides and opposite ends of the plate, said wings being spaced apart.

3. In a shuttle, a friction member therefor consisting of a base plate having an integral perforated web depending therefrom, and means passing through the perforation of the web for securing the friction member to the shuttle, said plate having a pair of spaced oppositely disposed elements on its upper face.

4. In a shuttle, a friction member therefor including a base plate, a pair of wings of plate-form secured to opposite sides of the base plate and having their opposite ends curved, said base plate being secured to the shuttle so that the wings extend transverse to the longitudinal axis of the latter.

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

JOSEPH LACROIX.

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