

S. A. DUDLEY.
SHUTTLE.
APPLICATION FILED JUNE 16, 1911.

1,041,607.

Patented Oct. 15, 1912.

Fig. 1.

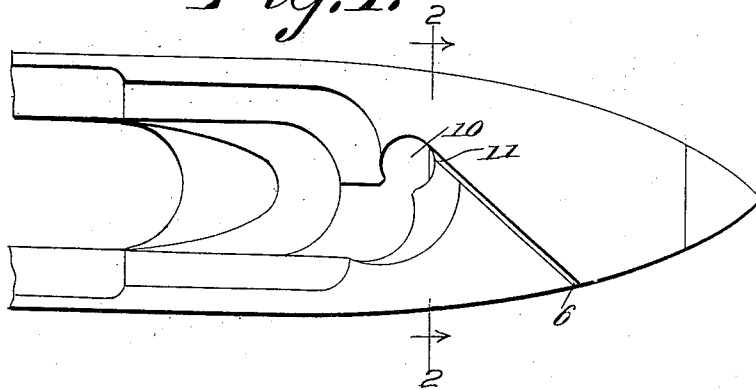


Fig. 2.

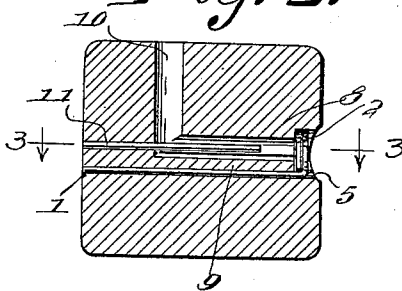


Fig. 4.

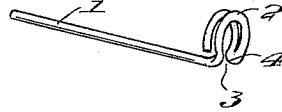


Fig. 3.

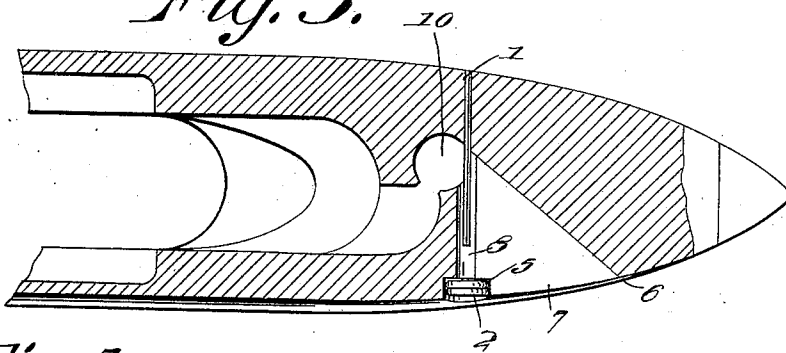
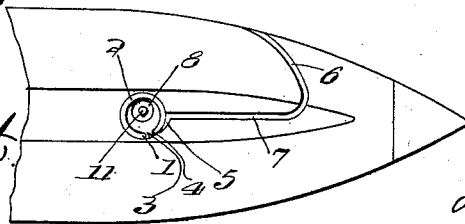


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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SHUTTLE.

1,041,607.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed June 16, 1911. Serial No. 633,574.

To all whom it may concern:

Be it known that I, SUMNER A. DUDLEY, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Shuttles, of which the following is a specification.

This invention relates to certain new and useful improvements in shuttles, and relates more particularly to hand threading shuttles.

The object of the invention is to provide a hand threading shuttle with improved means for effecting rapid and easy threading, and to provide an improved structure of this class which is of simple and economical construction.

A still further object of the invention is to provide means for preventing unthreading of the shuttle.

Further and other objects will later appear.

In the drawings: Figure 1 is a fragmentary top plan view of the shuttle constructed in accordance with the present invention.

Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the guide eye, and Fig. 5 is a fragmentary side elevation.

The present invention includes a guide eye which is formed of wire and constructed to have a straight shank 1 and an eye 2, the latter extending at right angles to the shank 1 and being bent in the form of an incomplete circle to provide a slot 3, the wire being returned or doubled on itself in order to provide a smooth edge 4 at the point where the thread enters the slot 3, and passes into the guide eye 2. It will thus be seen that the guide eye is formed complete from a single strand of wire, the eye proper being provided with a double coil or bend of wire. The stem 1 is placed in the shuttle across the front of the same and the guide eye 2 seats in a depressed portion 5 provided therefor in the shuttle side. 6 designates an angular slot which extends down through the top side of the shuttle and communicates by means of a horizontal slot 7 with a thread passage 8, the latter being located above the stem 1 of the guide eye and being separated from the latter by a section of wood 9 of the shuttle. Guide eye 2 however, as shown in Fig. 2, is in alignment with the thread passage 8, the oppo-

site end of the thread passage 8 registering with a vertical slot 10 which latter communicates at its base with the horizontal slot 7. In the thread passage 8 there is located a locking pin 11 which latter terminates in spaced relation to the eye proper of guide eye 2 and is disposed in the thread passage 8 so as to be spaced from the top and bottom, as well as the sides thereof.

In operation the thread is placed in the diagonal slot 6 and is moved downwardly in the latter so that a portion of the thread will enter the vertical slot 10 and the free end portion will be moved downwardly through the slot 6. The inner end portion of the thread will engage with the top side of the pin 11 and the free end portion of the thread on being moved through the horizontal slot 7 in a direction toward guide eye 2, is brought first to engage with the eye 2, is then moved downwardly so as to enter the slot 3 of eye 2, which action causes the thread to move over the free end of the locking pin 11 and become engaged beneath said locking pin, which thereby causes the thread to be held on the under side of the locking pin 11 against upward movement.

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

1. In a shuttle, formed with a vertical slot, and with a horizontal slot communicating with the base end of the vertical slot and with a diagonal slot connecting the vertical and horizontal slot, said shuttle being formed with a thread passage which communicates with the horizontal slot and the vertical slot, a guide eye located at the outer end of the thread passage, and a locking pin having an end thereof projecting in said thread passage, said end of the locking pin being spaced from the walls forming said thread passage and having its extremity spaced from the guide eye.

2. In a shuttle formed with a thread passage, a guide eye having a shank extending in the shuttle below said thread passage, said guide eye being in alinement with the thread passage, and a locking pin having its length co-extensive with that of said thread passage located in the latter and having its end in spaced relation to the guide eye.

3. In combination with a shuttle and the

thread passage thereof, a guide eye carried by the shuttle and located in alinement with said thread passage, and a locking pin in the thread passage having its inner end spaced from the walls of said thread passage and its extremity spaced from the guide eye.

4. In combination with a shuttle having a horizontal thread passage having its outer end extending through one side of the shuttle, a guide eye arranged in the outer end of said passage, and a locking pin having one end secured in the opposite side of the shuttle and having its opposite end extending in said passage in a direction co-extensive with the length of the latter and being spaced from the walls of said passage and

having its free extremity spaced from the guide eye.

5. In combination with a shuttle having a thread passage, a guide eye at the outer end of the passage, and locking means in the passage co-extensive with the length thereof and having its outer end spaced from said guide eye and also spaced from the walls of the passage.

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

SUMNER A. DUDLEY.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."