

J. LACROIX.
FRICTION DEVICE FOR SHUTTLES.
APPLICATION FILED JUNE 11, 1912.

1,054,355.

Patented Feb. 25, 1913.

Fig. 1.

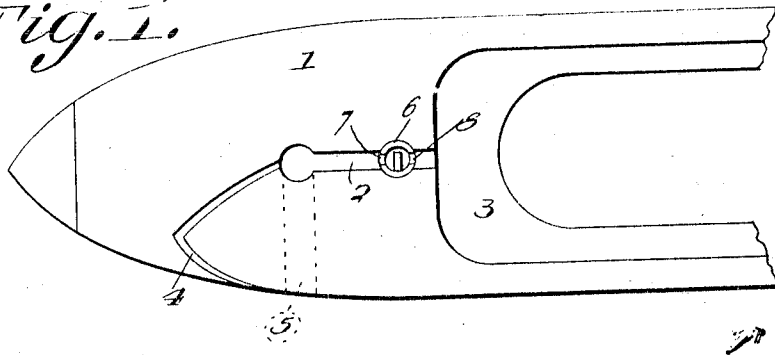


Fig. 2.

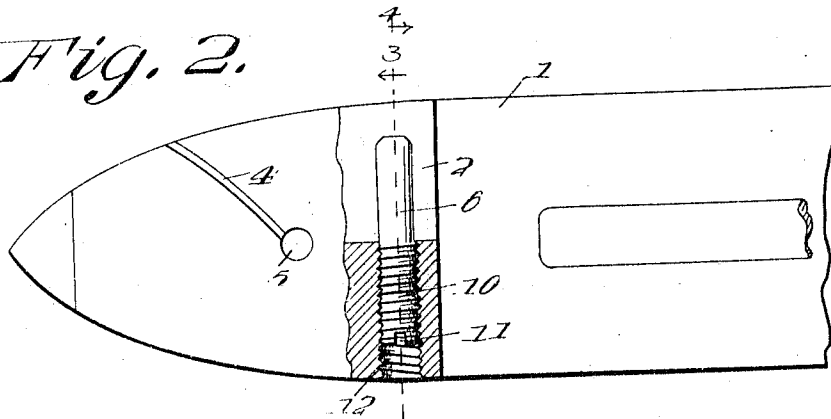


Fig. 3.

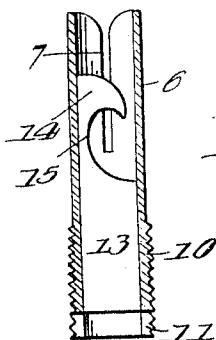
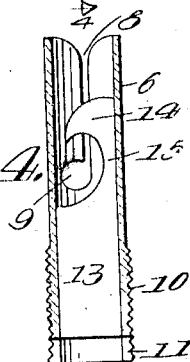


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH LACROIX, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR TO DOUBLE SPRING SHUTTLE CO., OF FALL RIVER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

FRICTION DEVICE FOR SHUTTLES.

1,054,355.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed June 11, 1912. Serial No. 703,085.

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 Friction Devices for Shuttles, of which the following is a specification.

This invention relates to certain new and useful improvements in friction devices for shuttles and the object of the invention is to provide a friction device of simple and economical structure which is capable of use with fine or coarse yarn and which is so constructed that any desired amount of friction may be obtained by simple adjustment of the friction device.

In the drawings—Figure 1 is a top plan view. Fig. 2 is a side elevation, partly in section. Fig. 3 is a section taken on the line 3—3 of Fig. 2 looking toward the point of the shuttle. Fig. 4 is a view similar to Fig. 3 but looking toward the shuttle bobbin cavity.

The shuttle 1 has a throat 2 that leads from the bobbin cavity 3 to the threading slot 4, the latter terminating in the delivery eye 5.

The friction device consists of a tubular post 6 that is formed with a pair of diametrically opposed slots 7 and 8 that extend in alinement with the longitudinal axis of the post, both of the slots extending through the upper end of the post and terminating at a point substantially central of the length of the post. The slot 8 terminates at its inner end in a circular hole 9 the bottom of which is disposed in a point slightly below the bottom of the slot 7. The hole 9 of the post 6 is located adjacent the bottom cavity 3. The lower end of the post is exteriorly threaded at 10 and is formed with slots 11 to receive the screw driver point, whereupon the screw threaded portion 10 which is engaged in an internally threaded socket 12 that extends up through the bottom of the shuttle into the throat 2 thereof, may be turned in the socket 12 in an obvious manner.

The thread engaging device consists of a member that has a base 13 which is circular in cross section and which is conformably engaged in the bore of post 6. The upper end of the thread engaging device is formed with a hook shaped end 14 that is connected

by a shank 15 with the base 13, the hook shaped member 14 extending across the slots 7 and 8, as depicted in Figs. 3 and 4. The thread engaging device is adjustable longitudinally of the post 6.

In case of the use of coarse yarn a screw driver can be inserted into the upper end of socket 12 and engaged with the slots 11 to turn the post and thereby cause the slots 7 and 8 to assume a relative angular position with respect to the throat 2 to give any desired degree of friction.

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

1. A friction device for shuttles, consisting of a tubular post exteriorly threaded at one end and having its opposite end provided with a pair of longitudinal oppositely disposed slots, one of said slots having its inner end terminating in a round hole, and adjustable thread engaging means on the interior of said post said thread engaging member having a portion, which extends across each of the slots and is adapted to have its under side engage the thread.

2. A friction device for shuttles, consisting of a tubular post exteriorly threaded at one end and having its opposite end provided with a pair of longitudinal oppositely disposed slots, one of said slots having its inner end terminating in a round hole, and a thread engaging member on the interior of the post having a base that is conformably fitted in the post at one end thereof, a shank formed on the base, and a hook-shaped member on the shank extending across said slots.

3. A friction device for shuttles consisting of a tubular post open at each of its ends, the upper end of said post being formed with a pair of oppositely disposed slots, and an adjustable thread engaging device in said post which has a base circular in cross section which is conformably and frictionally fitted in the base end of the post, and a member on said base of the thread engaging device which is disposed across the slots said member having an end spaced from the upper end of the post interior which is opposite to the said end to allow the thread to be passed down through the slots and to engage the under side of said member.

4. A friction device for shuttles consist-

ing of a tubular post having opposite slots
at one end, and a removable thread engag-
ing element in said post having a part there-
of extending across each of said slots and
5 adapted to have the thread engage its under
side.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

JOSEPH LACROIX.

Witnesses:

ADA E. HAGERTY,
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