J. C. SERGESON.

SHUTTLE.

APPLICATION FILED MAY 7, 1909.

956,198. Patented Apr. 26, 1910.

Fig. 1.

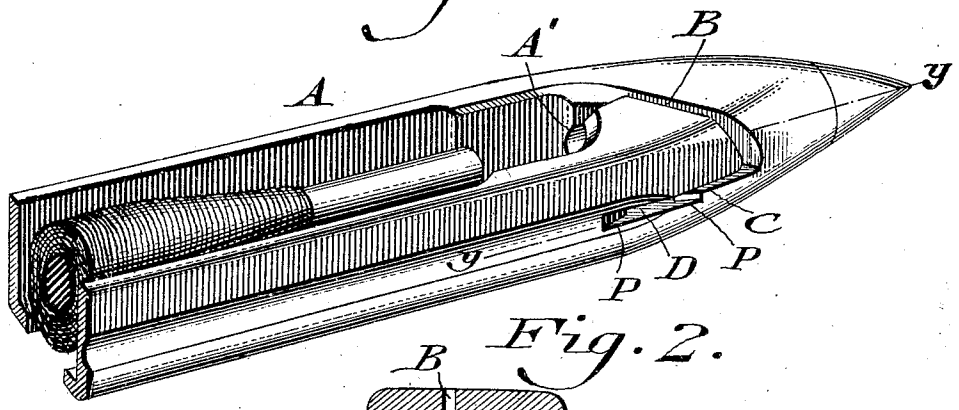


Fig. 2.

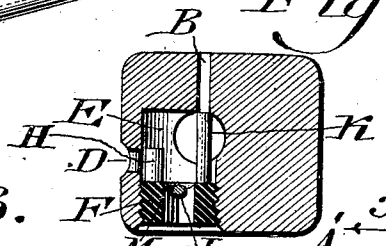


Fig. 3.

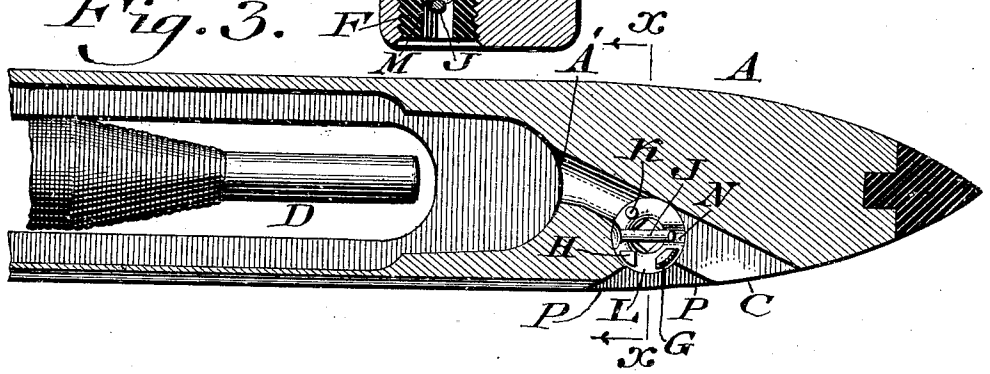


Fig. 4.

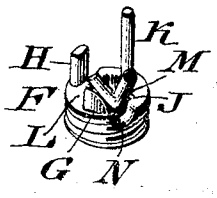
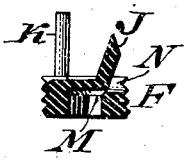


Fig. 5.



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SHUTTLE.

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Application filed May 7, 1909. Serial No. 494,531.

To all whom it may concern:

Be it known that I, JAMES C. SERGESON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Shuttle, of which the following is a specification.

My invention consists of a loom shuttle, having a threading device and means thereon for retaining the thread or yarn in position, while being run out, as will be hereinafter described, the novel features being pointed out in the claims.

For the purpose of explaining the invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a perspective view of a portion of a shuttle embodying my invention. Fig. 2 represents a transverse section on an enlarged scale, on line *x*—*x*, Fig. 1. Fig. 3 represents a horizontal section on an enlarged scale of a portion, on line *y*—*y*, Fig. 1. Fig. 4 represents a perspective view of a detached member on an enlarged scale. Fig. 5 represents a section through Fig. 4.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings:—A designates a portion of the body of a shuttle, which, excepting the features of my invention applied thereto may be of known construction. In the nose portion of said body, are the throats B, C, the throat B extending vertically and forwardly from the passage A′ of said body, diagonally to the side of the body and down said side, where its lower terminal joins the throat C, the latter extending backward from said terminal to the recess D in the side of the nose portion of the body, said recess communicating with an opening E, which is formed vertically in said portion and receives the threading device F, the latter having a body which is exteriorly screw-threaded to engage with the threaded wall of said opening E.

Extending upwardly from said body and projecting into the opening E, is the horn G, the guard H, the elbow J and pin K, which members are formed with or secured to said threading device, the horn G and guard H being separated by the passage L.

The top of the threading device is recessed, as at M, the recess extending into the side of the threading device, as at N, and the horizontal limb of the elbow J is slightly above said recess so that the thread or yarn of the shuttle may pass under the same, it being noticed that the horn G, the guard H, the inclined limb of the elbow J, and the pin K occupy portions of the opening E, and that passage L between the horn G and guard H is in communication with the recess D in the nose portion of the body of the shuttle.

In the side of the nose portion, are the inclined shoulders P, P, which extend respectively forward and backward from the recess D, the thread or yarn of the shuttle when running out being adapted to ride on either of said shoulders.

The operation is as follows:—The thread or yarn from the bobbin or cop is passed thereon into the throat B, then downwardly on the back of the pin K, from thence it is guided by the vertical limb of the elbow J into and through the recesses M, N under the horizontal limb of said elbow and over the horn G into the passage L between said horn and the guard H, from which passage it cannot be displaced owing to said horn and guard, after which it passes out through the recesses D, and so leaves the body of the shuttle, it being noticed that the thread or yarn is prevented from returning to the throats C, B and by its contact with the members previously stated, receives its tension. It is to be noted that the elbow J is extended outwardly from the threading device F and the free end thereof is disposed above the recess N. By this construction and arrangement, the threading of the shuttle is facilitated and the proper tension assured.

By "inner" side, I mean that portion of the threading device which is farthest from the adjacent tip of the shuttle "inward" being away from the said tip and "outward" being toward said tip.

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

1. In a shuttle, a threading device screw-threaded to engage the body thereof on its under side and provided with an elbow outwardly extended from the inner side thereof, said body having therein a throat which leads to said elbow and is in communication with said threading device.

2. In a shuttle, a threading device connectible with the body thereof and provided on the inner side thereof with an outwardly extended elbow having a horizontal limb and an upwardly inclined limb, said device having a recess in its top and a recess in the side below said horizontal limb for the passage of the yarn beneath said limb, said body having therein a throat which leads to said elbow and recess.

3. In a shuttle, a threading device screw-threaded for connection with the body thereof and provided upon its inner side with an outwardly extended elbow, a horn on said threading device adjacent the elbow, said body having therein a throat which leads to said elbow and horn and is in communication with the threading device.

4. In a shuttle, a threading device connectible with the body thereof and provided on its inner side with an outwardly extended elbow, a horn and a passage at the side of the latter, said body having therein a throat which leads to said body, horn and passage, said threading device being provided with a guard and a pin with a passage between the horn and guard.

5. In a shuttle, a threading device connectible with the body thereof and provided on the inner side with an outwardly extended elbow the latter having horizontal and vertical limbs and a recess beneath the horizontal limb of the elbow, a horn, a guard for the latter, a pin on the side of the elbow opposite the horn, there being a passage between the horn and elbow and said body having therein a throat which leads to said elbow, horn and passage.

6. In a shuttle, a threading device comprising a body exteriorly threaded and having an axial passage, a horn upon one side of said passage, a pin upon the opposite side, an elbow located over said passage and a recess in the side of the body beneath said elbow.

7. In a shuttle, a threading device comprising a body exteriorly threaded and having an axial passage, a horn upon one side of said passage, a pin upon the opposite side, an elbow located over said passage, a recess in the side of the body beneath said elbow, and a guard for said horn extending from said body substantially opposite the recess.

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