(No Model.)

A. E. P. MARTYN.

LOOM SHUTTLE.

No. 333,317. Patented Dec. 29, 1885.

Fig. 1.

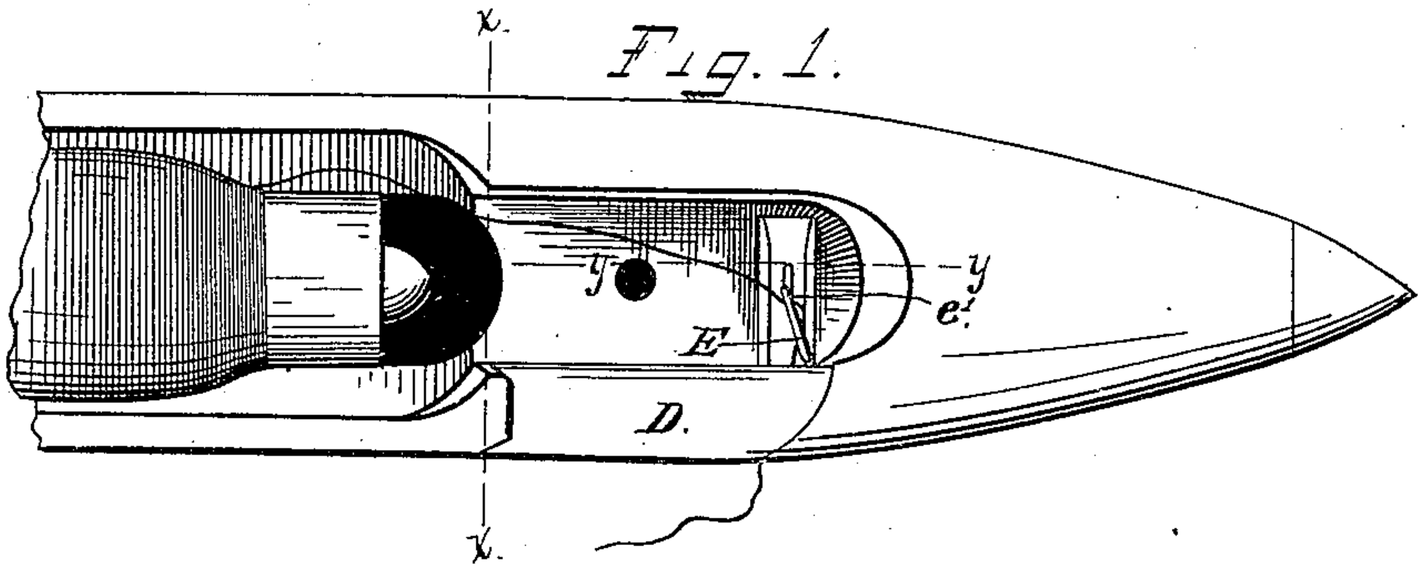


Fig. 2.

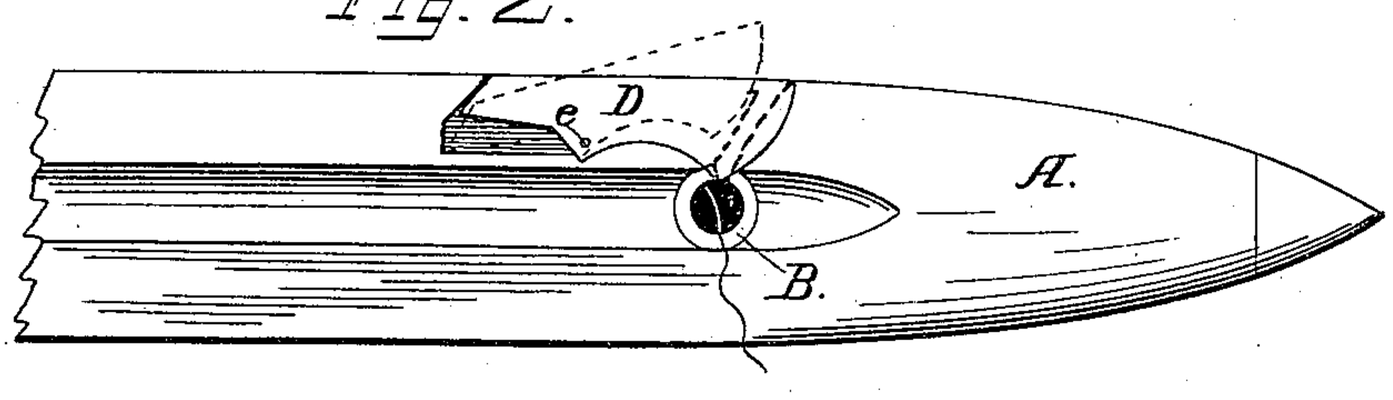


Fig. 3.

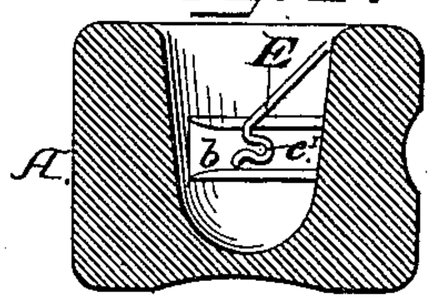


Fig. 4.

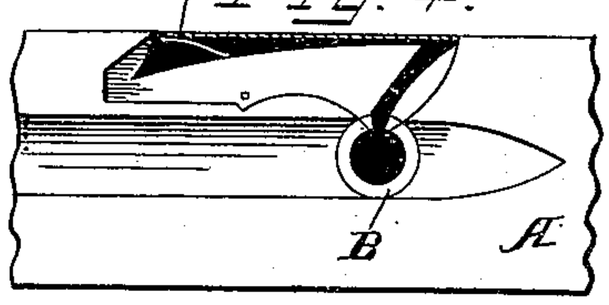


Fig. 5.

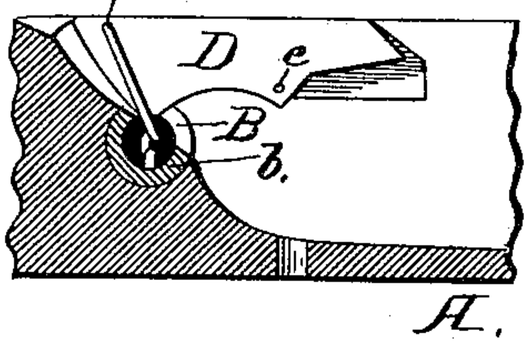
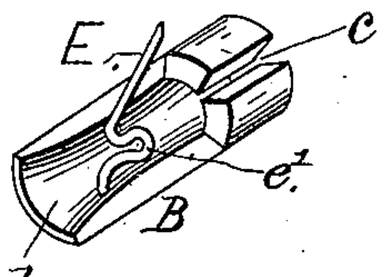


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALBERT E. P. MARTYN, OF MANCHESTER, NEW HAMPSHIRE.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 333,317, dated December 29, 1885.

Application filed March 15, 1884. Serial No. 124,286. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. P. MARTYN, a citizen of the United States, residing at Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Loom-Shuttles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of improvements in loom-shuttles, whereby the operation of threading the same is greatly facilitated and simplified; and it consists in the details of construction, arrangement, and combinations of parts, as more fully hereinafter set forth and claimed.

In the drawings, Figure 1 is a plan view of a portion of an ordinary shuttle containing the eye, the same being provided with my improvements. Fig. 2 is a side view of the same. Fig. 3 is a transverse section on the line *x x*, Fig. 1. Figs. 4, 5, and 6 are detail views.

A represents the forward portion of an ordinary loom-shuttle, having an eye, in which is seated a bushing, B, made of metal or other suitable material. The shuttle is slotted from its upper edge to the interior of the bushing, as shown in Fig. 4. The shuttle is cut away on its inner and outer walls, as shown in Figs. 4 and 5, to receive a latch, D, which is flush with the surface of the shuttle. The latch turns on a pivot, *e*, and its forward edge extends beyond the sides of the slot, to close the same and prevent the escape of the thread from the eye when the shuttle is in operation. The latch is held in a closed position by a spring, *d*, inserted between it and the upper edge of the shuttle, which latter is cut away in the rear of the pivotal connection of the latch, to permit the depression of the same to disclose the slot in the bushing and shuttle, as shown in dotted lines, Fig. 2, when it is desired to thread the shuttle. The bushing B is slotted, as at C, to coincide with the slot in the shuttle-body, and is cut away to form an extension, *b*, which fits in the bottom of the throat of the shuttle, with the upper edge flush with said bottom, and is designed to receive and support a guide-arm, E, having an eye, *e'*, formed therein in alignment with the opening through the bushing. The upper end of this guide rests against the inner face of the latch D, and serves to direct the thread to the eye *e'* and into the eye of the shuttle.

In practice the rear platform of the latch D is depressed, thereby exposing the slot through the shuttle and bushing. The thread from the bobbin is passed around the guide E and directed through the eye of the shuttle. The pressure on the latch being then removed, it closes by reason of the spring *d*, and the shuttle is ready for the loom.

I am aware that the eye end of a shuttle has been provided with a metal bushing, and that a sliding bolt has been located within said bushing, its head being held against the edges of a cavity formed in the shuttle. When threading such shuttle, the sliding bolt is forced outward, and the thread is passed around the head of the bolt and into the thread-delivery eye through a cut or slot in its side. I am also aware that the eye of a shuttle has been provided with a slotted bushing, and a slot in the shuttle-body leading to such eye has been made V-shaped and closed by a correspondingly-tapered plug having a shank, about which is coiled a spiral spring, and that a vertical pin has been employed in such case in the shuttle-throat for the guidance of the thread to the delivery-eye. These devices and constructions are essentially different from mine, which is made up of fewer parts, as specifically pointed out in the claims.

In my construction the slotted bushing B is cut away, as described, to form an extension, which rests in a seat cut in the throat of the shuttle, and the guide-arm E, being secured at its lower end in the extension of the bushing, is supported in a metallic bed, being consequently not so liable to be displaced as if it were simply inserted in the wood of the shuttle, as is the case with the constructions heretofore known. The upper end of the guide-arm being extended close to the upper edge of the slot in the shuttle-body, by giving an inclination thereto it serves to positively direct the thread to the eye of the shuttle. The guide-eye of the arm being in line, or nearly so, with the axis of the bobbin and in line with the delivery-eye, the weft is caused to draw evenly from the bobbin, and is prevented

from rubbing against the sharp edges of the metallic bushing, it being at all times guided centrally therethrough. This result is not attained by the perpendicular guide-arm heretofore employed.

The upper end of the guide-arm, by bearing on the side of the latch, leaves no space whereby the weft may possibly get back of or on the wrong side of the guide-arm.

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

1. The combination, with a shuttle-body having a slot extending from its eye to its upper edge, of a bushing slotted to coincide with the slot in the body of the shuttle and cut away to form an extension, and a guide-arm supported by said extension, substantially as and for the purposes described.

2. The combination of a shuttle-body provided with a throat and an eye, the latter having a slot extended therefrom to the surface of the shuttle, with a guide-arm located within the throat, and having an eye formed therein in alignment with the eye of the shuttle, the upper end of said arm extending close to the upper edge of the slot, substantially as shown and described.

3. The combination, with a shuttle-body, the eye of which is slotted substantially as shown, of a pivoted latch normally closing the slot in the shuttle, a spring acting thereon to hold it in said position, and a guide-arm having an eye formed therein substantially in line with the eye of the shuttle, its upper end extending close to the upper edge of the slot and bearing on the inner side of the latch, as and for the purposes set forth.

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