

(No Model.)

I. L. WILBER.

LOOM SHUTTLE.

No. 315,100.

Patented Apr. 7, 1885.

Fig. 1.

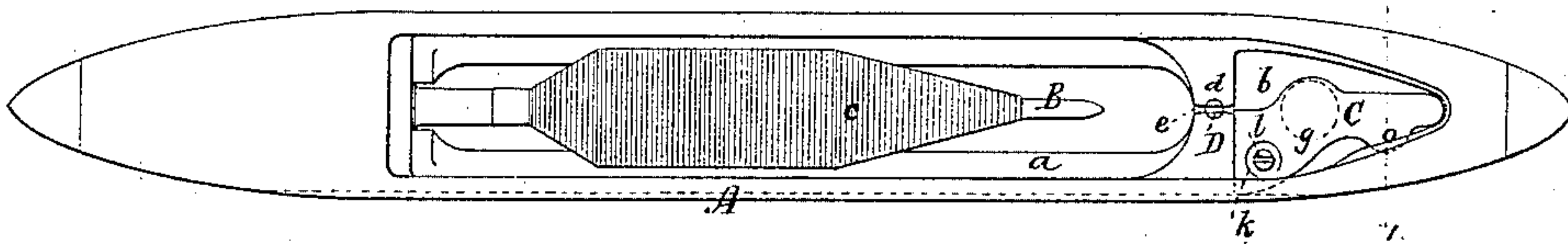


Fig. 2.

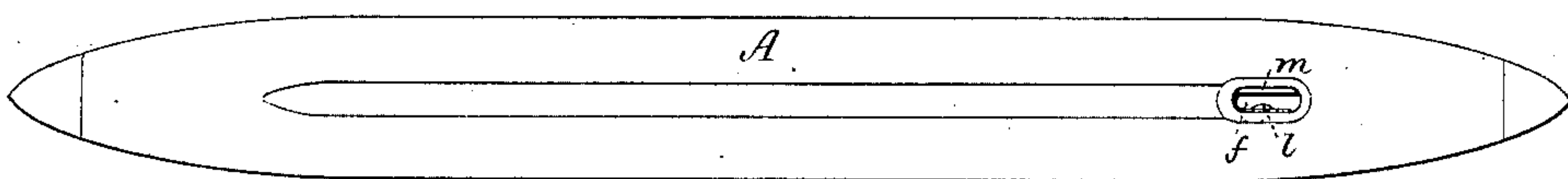


Fig. 3.

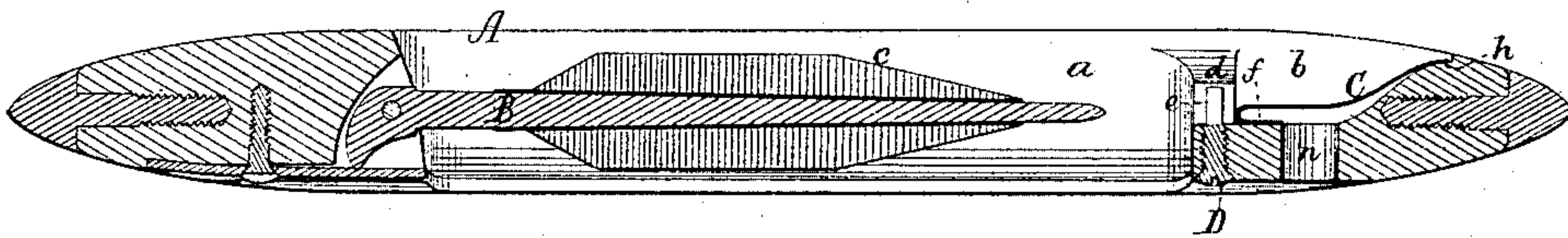


Fig. 4.

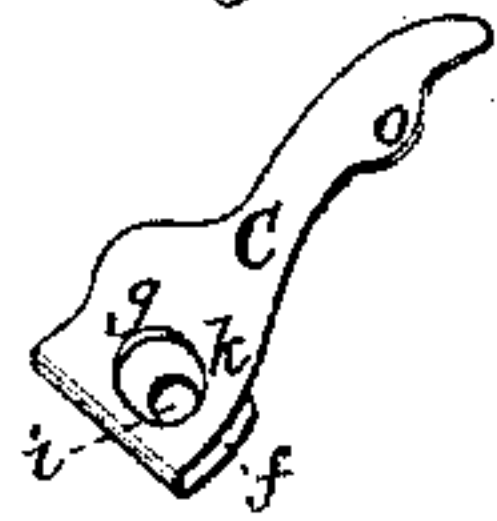


Fig. 5.

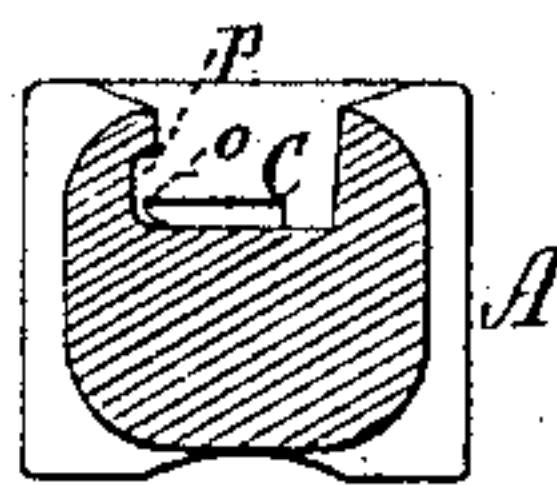


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

ISAAC LINCOLN WILBER, OF TAUNTON, MASSACHUSETTS.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 315,100, dated April 7, 1885.

Application filed September 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, ISAAC LINCOLN WILBER, of Taunton, in the county of Bristol, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Loom-Shuttles; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of a shuttle provided with my invention, the nature of which is defined in the claims hereinafter presented. Fig. 4 is a perspective view of the thread or yarn guide. Fig. 5 is a transverse section of the shuttle, taken on line 1 1 of Fig. 1, or through the stopping-ear of the yarn-guide; and Fig. 6 is a side view of the slotted friction-screw to be described.

The invention is to enable a weaver to expeditiously thread a shuttle or pass the yarn of the cop through the side of the shuttle without having to accomplish this by the aid of suction of his mouth applied to the shuttle, and thereby drawing filaments therein to his detriment.

In such drawings, A denotes the shuttle-body, having in it a cop-chamber, *a*, and in advance thereof an auxiliary chamber, *b*, the latter being for reception of the threading-guide C, by which the yarn from the cop *c* on the spindle B is guided into a hole leading laterally out of one side of the shuttle. Between the two chambers, or in the partition *d* separating them, is a guide-groove, *e*, within which is the slotted friction-screw D. This screw, slotted from its smaller end diametrically across it and lengthwise in the shank, is screwed upward into the said partition with the slot in the guide-groove *e*, all being as represented. On turning the screw so as to bring its slot more or less oblique to the groove, friction will be produced on the yarn while being drawn from the cop through the groove, such friction being to prevent the yarn from being delivered too fast while the shuttle may be in flight across the race-beam of a loom. The threading-guide C is bent or hooked at its rear part, as shown at *f*, and from thence to its longer part it is a wide plate-spring, *g*, formed as shown. It rests at its free end on a bearing or shoulder, *h*, at the upper part and front end

of the auxiliary chamber *b*. Through the lower portion of the spring *g*, and directly over a hole, *i*, in the hook *f* below it, is a hole, *k*, to admit of a fastening-screw, *l*, being inserted in such hole *i* and screwed into the body of the shuttle, in order for such screw to secure the threading-guide in place. The hooked part of the threading-guide extends and opens into an educt or hole, *m*, leading out of the auxiliary chamber and laterally through the shuttle-body. Beneath the spring *g* there is in the shuttle-body a hole, *n*, for a weaver's finger to pass to the spring in order to force it upward off the bearing or shoulder *h*, to enable him to pass the yarn under and about the spring and into its hook. After having done this he can easily seize the yarn in the hook and draw it through the hole *m*.

To prevent the spring *g* from being overstrained by the finger of an operative, such spring has an ear, *o*, projecting from it into a recess, *p*, in the shuttle-body. On pressing upward the spring sufficiently the ear will bring up against the top of the recess, and by such the spring will be stopped from advancing higher.

In threading the shuttle the weaver has not to suck the yarn through the lateral opening of the shuttle-body, but with the forefinger of his hand holding the shuttle he is to force upward the spring *g* of the threading-guide C, and next is to draw the yarn around under the spring and into the hook, after which he is to seize the yarn and pull it laterally out of the hook and through the hole *m*.

It will be seen that with the aforesaid threading-guide I do not use any slit for the passage of the yarn from the shuttle in the side of its chamber and leading down from the top thereof into the eye or opening in the side of the shuttle-body.

I claim—

1. The combination, with a loom-shuttle body provided with the thread educt or eye, of the yarn-threading guide arranged in such body and fixed thereto by a screw, substantially as described, such guide consisting of a spring hooked at its rear part and provided in the hooked part with two holes, one larger in diameter and arranged directly over the other, as set forth.

2. The yarn-threading guide consisting of a

spring hooked at its rear part and having an ear extending laterally from the larger part, all substantially as set forth.

3. The combination of the yarn-threading guide consisting of a spring hooked at its rear part, as represented, and arranged and fixed, as described, in the shuttle-body, with the said body provided with the hole or passage for the escape of the yarn from the hook of the said guide and out from the shuttle, as explained.

4. The combination of the threading-guide, consisting of the spring hooked at its rear end and arranged, as described, in the shuttle-body, and provided with an ear extending laterally from it, the said guide, with the shuttle-body, provided with the delivery-eye and chambered to receive and hold such guide, and furnished with the shoulder or bearing for the free end

of the guide to rest upon, the stopping-recess for the ear to enter, and the finger-receiving hole underneath the guide, all being substantially as represented.

5. The combination of the threading-guide, consisting of the hooked spring, as described, with the shuttle-body having a chamber for reception of such guide, and a thread-passage leading out of the said chamber, a shoulder or bearing for the guide in the upper part of such chamber, and a hole through the bottom of the chamber for access by the weaver's finger to the guide for moving it off the shoulder or bearing, all being substantially as set forth.

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Witnesses:

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JOHN F. MONTGOMERY.