(No Model.)

S. M. HAMBLIN.

SELF THREADING LOOM SHUTTLE.

No. 503,851. Patented Aug. 22, 1893.

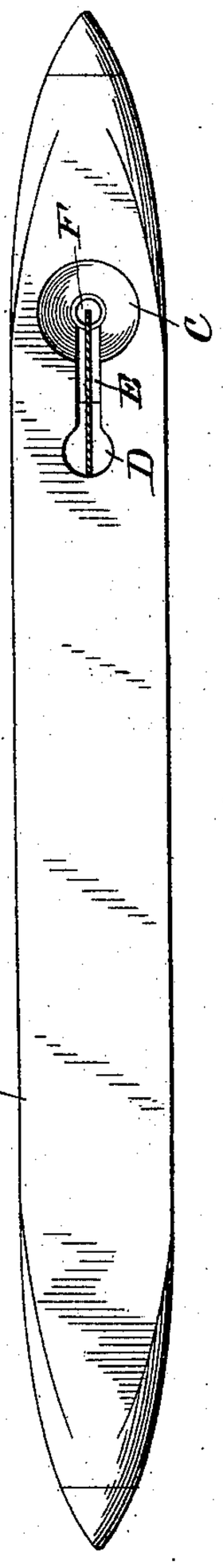

Fig. 1.

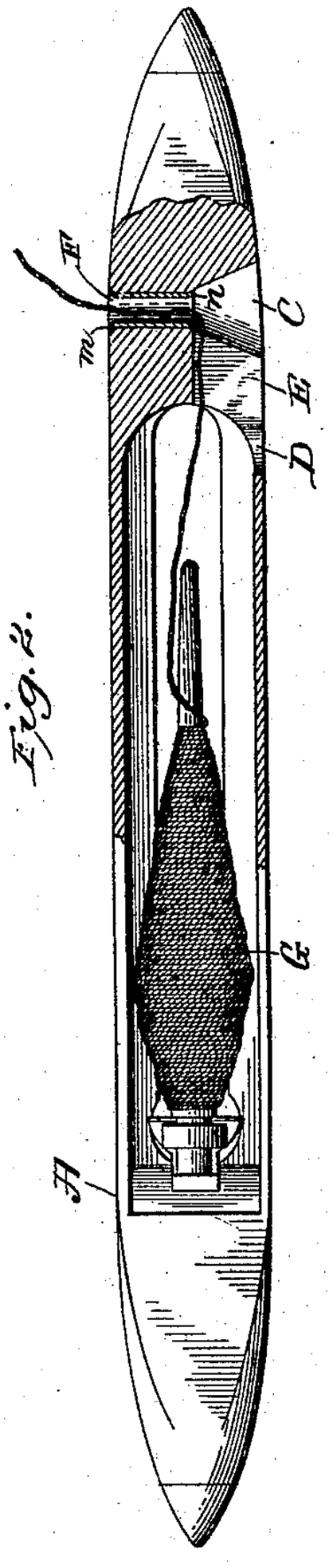

Fig. 2.

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UNITED STATES PATENT OFFICE.

STEPHEN M. HAMBLIN, OF NEW BEDFORD, ASSIGNOR OF ONE-HALF TO EDWIN S. DAMON, OF PLYMOUTH, MASSACHUSETTS.

SELF-THREADING LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 503,851, dated August 22, 1893.

Application filed October 29, 1892. Serial No. 450,408. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN M. HAMBLIN, a citizen of the United States, residing in New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Self-Threading Loom-Shuttles, of which the following is a full, clear, exact, and concise description, reference being had to the accompanying drawings, in which similar letters refer to similar parts throughout the several views.

This invention relates to an improvement in weavers' shuttles, and consists in the novel construction and arrangement of parts of such a shuttle, as will be hereinafter fully described in the specification, and more particularly pointed out in the claim.

In the accompanying drawings Figure 1 is an elevation of a side of a shuttle body showing a port, thread way and thread entry. Fig. 2, is an elevation partly in section showing the internal construction of those portions embodying my invention.

At any convenient point in the side of the shuttle body A preferably near its head and opposite the intended location of the delivery eye F I make an opening or thread entry C. extending through the shuttle body sufficiently large to admit of the insertion of the eye F. and of the passage of thread from one side of the shuttle out at the other. The mouth or entrance of such thread entry is cut away to form a funnel shape entrance for the reception of a loop, bight or loose mass of thread. On the same side of the shuttle I make an opening or port D. completely through the wall of the shuttle body preferably at a right angle to the point of the spindle sufficiently large to admit of pushing an end of the thread from the cop by the operative's finger from the inside of the wall to the outside. The thread-entry C and such port are connected by means of a deep continuous slot, groove or threadway E. extending inwardly to the median line in the shuttle opposite to the point of the spindle so that a thread following such groove shall be conducted from its delivery at the point of the spindle into the transverse opening leading into the delivery eye F. The shuttle may be provided with an ordinary delivery eye, but it will be noticed from the construction shown in Fig. 2 that I use preferably a metallic eye having the form of a hollow screw or cylinder provided with serrated sides which may be inserted through the thread entry C. into its proper position and by internal distension with any suitable means be embedded into the shuttle body, and both the outer end *m* and the inner end *n* eyeleted out to prevent displacement. The extreme interior surfaces of my thread way when cut integral with the shuttle body serve as a conduit for the thread when is use, but it is apparent that other interior thread-conductors may be affixed to any shuttle body having such port, entry and thread way in one side, and an opposite delivery eye, with substantially a like result. My lateral threadway may be enlarged to any desirable extent either for coarse yarns or to admit the insertion of the ordinary frictional tension devices upon its sides.

The operation of threading the shuttle is performed by passing the free end of the thread by the tip of a finger from the inside of the shuttle body outwardly through the port D. Such end is then caught with the fingers of the other hand and either inserted into the entry C until it protrudes from the other side at the delivery eye F.; or a bight, or loop may be deposited in the entry C. and thence led out at the eye F by the hook in ordinary use; or a loose mass of the thread collected in the ordinary manner used heretofore for threading by inhalation be inserted in the entry C when it may either be drawn through with slight effort by suction applied to the eye F. or readily blown through by applying the mouth to cover the entry C. In either case the end protruding from the eye F. is drawn taut, which causes the thread to slide in the threadway E. to the full extent into the conduit C in the center of the shuttle, when the shuttle is ready for use.

I do not desire to limit myself to the exact forms or relative positions of the parts herein indicated, as it is obvious that they may be modified in size shape and location with the same result.

What I claim as new, and desire to secure by Letters Patent, is—

A shuttle-body having a funnel-shaped thread-entry or opening C made transversely through its head and terminating about midway of the transverse diameter of the said body, an eye F communicating with the said opening and extending transversely through the body to the side opposite that into which the said entry opens, a port D extending through the wall of the shuttle-body, and a horizontal slot or threadway F extending inward to a point in line with the end of the spindle and connecting the entry C with the port D, substantially as described.

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