A. M. MOORE.

LOOM-SHUTTLE.

No. 185,041. Patented Dec. 5, 1876.

Fig. 1.

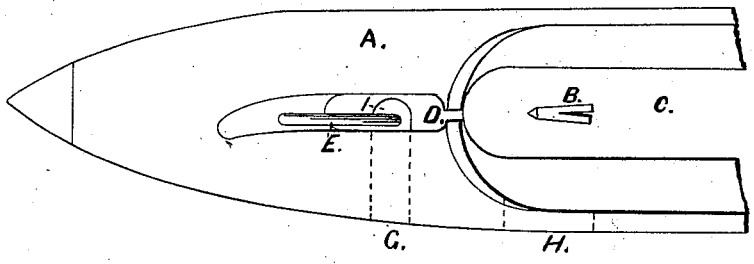


Fig. 2.

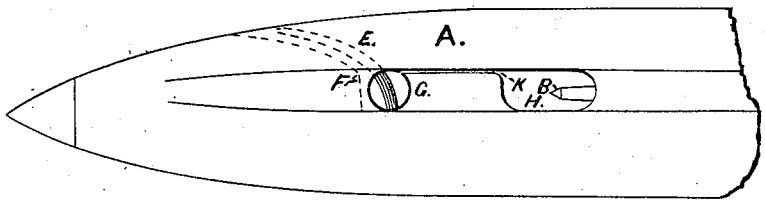
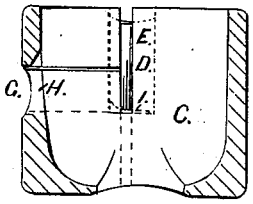


Fig. 3.



Witnesses.
Nathaniel Hill.
Irving S. Porter.

Inventor
Albert M. Moore.

UNITED STATES PATENT OFFICE.

ALBERT M. MOORE, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO ABEL T. ATHERTON, OF SAME PLACE; AND SAID A. T. ATHERTON ASSIGNOR TO WHITEHEAD & ATHERTON.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **185,041**, dated December 5, 1876; application filed September 20, 1876.

To all whom it may concern:

Be it known that I, ALBERT M. MOORE, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain Improvements in Loom-Shuttles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to self-threading devices; and consists, principally, in a longitudinal threading-slot entering the delivery-eye of the shuttle; also, in a threading-eye so constructed that the thread may be readily passed through it; also, in a stud which retains the thread in its proper place and keeps the delivery-eyelet in position, all as hereinafter described.

Figure 1 is an elevation, and Fig. 2 a plan, of a shuttle containing my invention. Fig. 3 is a vertical cross-section through the threading-eye.

A is the body of the wooden shuttle now in common use, B the spindle, C the chamber, and D the throat, all as now used, except that the throat is continued farther than usual toward the tip of the shuttle, with a suddenly diminished depth at F and a gradually diminishing depth beyond F. G is the delivery-eye, entered by a narrow slot, K, which runs to the chamber C and extends from the outside of the shuttle to the throat D. The eyelet in the eye G is of course slightly open at the top to admit the yarn, and, if made of untempered sheet metal, or of an unyielding brittle substance, cannot be firmly secured by being driven in, as a whole eyelet would be. Accordingly I provide the eyelet with a projecting under side, I, which extends across the throat D. The stud E is then driven through a hole in the part I into the wood, and keeps the eyelet from turning and from being shaken out. The side of the stud E away from the eye G is in the line of the axis of the spindle, so that the yarn, making a quarter turn around the stud and passing out of the eye G, draws uniformly from the spindle. To prevent the yarn from flying off from the stud, the stud is bent down over the shoulder at F into the shallow end of the throat D, so near as almost to touch the wood. H is a threading-eye, situated at the end of the threading-slot K, and by said slot connected with the eye G. The eye H opens into the chamber C, and has its upper edge beveled on the inside, so as to be quite thin. The left end of the eye H is inclined up toward the threading-slot K, so that the thread or yarn when drawn to the left will run from said eye into the slot K.

In threading the shuttle, the cop-yarn from the spindle is passed half around the stud and pressed by the forefinger of the right hand into the threading-eye H from the chamber C. The thumb of the right hand rubs the yarn from the tip of said forefinger (the edge of the eye H, being thin, offers no obstacle) on the outside of the shuttle up to the top of the same, where the yarn is grasped by said thumb and forefinger and drawn into the delivery-eye G through the slot K. The operation can be performed very quickly.

It will be seen that the threading-slot does not, as it does in other slotted-eyed shuttles, run across the grain of the shuttle; that the threading-eye cuts off no more fibers of the wood than the delivery-eye cuts off; and that the fibers cut off by each eye are the same, or at least are in the same horizontal section, so that the threading device does not materially weaken the shuttle.

The shuttle above described is the commonly-used wooden shuttle; but if a shuttle with open sides is used—for instance, a shuttle in which the angles of the body consist of stout wire—no threading-eye will be required.

I claim as my invention—

1. A shuttle, A, provided with a longitudinal threading-slot, K, and means for guiding the thread into said slot, as and for the purpose described.

2. A shuttle, A, provided with the threading-eye H and the delivery-eye G, connected with each other by the slot K, as and for the purpose described.

3. A shuttle, A, provided with the delivery-eye G, slot K, threading-eye H, and stud E, as and for the purpose described.

4. A shuttle, A, provided with a threading-eye, H, having its upper edge beveled, as and for the purpose described.

5. A shuttle, A, provided with the stud E, curved and extended over the shoulder F, as shown and described.

6. The eyelet G, having a projecting under side, I, in combination with the stud E, as and for the purpose described.

ALBERT M. MOORE.

Witnesses:
IRVING S. PORTER,
ISAAC S. DALY.