

J. H. Coburn.
Loam Shuttle.

N^o 48,154.

Patented Jun. 13, 1865.

Fig: 1.

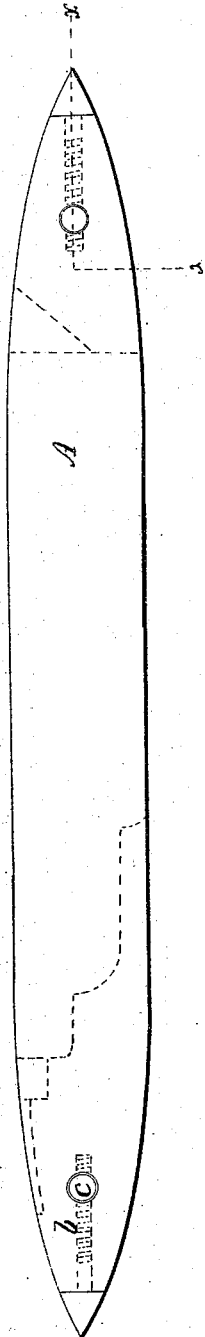
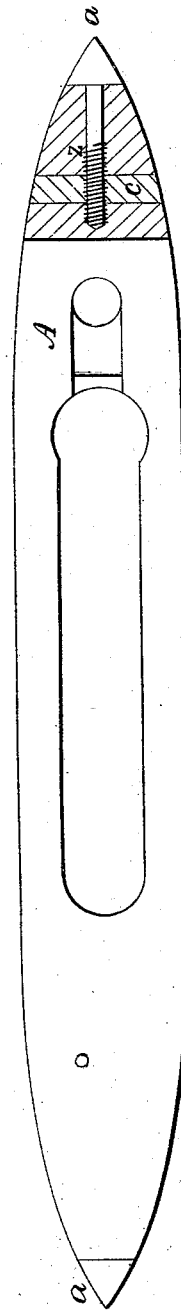


Fig: 2.



Witnesses:
Wm. Freeman
Theo. Tusch

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UNITED STATES PATENT OFFICE.

JOHN H. COBURN, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN SHUTTLES FOR LOOMS.

Specification forming part of Letters Patent No. 48,154, dated June 13, 1865.

To all whom it may concern:

Be it known that I, JOHN H. COBURN, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Shuttles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a shuttle constructed after my invention. Fig. 2 is a plan view of the same, a portion being shown in section on the line *x* of Fig. 1.

Similar letters of reference indicate like parts.

This invention consists in a method of securing the tips of shuttles, so that they may sustain the violent blows and shocks given to them in weaving without becoming loose and falling out, and whereby, also, the shuttle will be strengthened and prevented from being split.

A represents a shuttle, which may be constructed and fitted in any desired way, but whose tips are made in the way herein described.

a is the metal tip, whose rod *b* extends into the end of the shuttle, as shown. A screw-thread is cut on the rod, by means of which it is connected to the shuttle.

c is a plug of wood, metal, or other suitable

substance, which is placed snugly in the end of the shuttle in the path of the rod *b*, and at right angles therewith. I have shown a plug made of wood in this example of my invention.

The rod *b* is screwed directly through the center of the plug, the latter answering the purpose of a nut to the rod and its tip.

The plug may be of any suitable shape, but it must be of a size sufficient to enable the rod *b* to take firm hold thereof, and of a strength and material to enable it to resist the shock which will be transmitted to it through the tip and its rod without stripping the threads of the screw.

One of the advantages which is derived from the plug is that it preserves the shuttle from being split by the shocks it sustains in its movements.

The plug may be screwed or keyed in the shuttle, or secured in any other suitable manner, if desirable so to do.

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

Securing the tip of the shuttle by means of its screw-threaded shank *b*, which screws through the transverse plug *c*, substantially as above described.

JOHN H. COBURN.

Witnesses:

A. B. RICHARDSON,
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