(No Model.)

T. WOOD.

LOOM SHUTTLE.

No. 422,481. Patented Mar. 4, 1890.

Fig. 1.

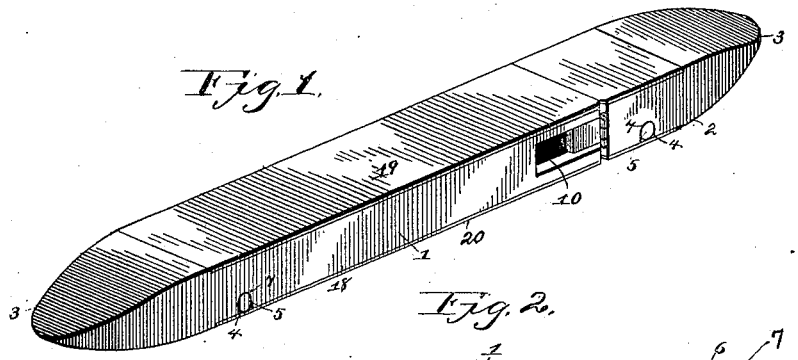


Fig. 2.

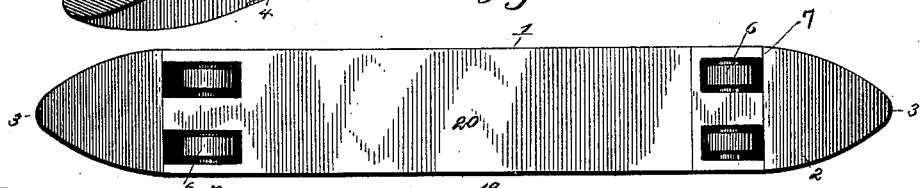


Fig. 3.

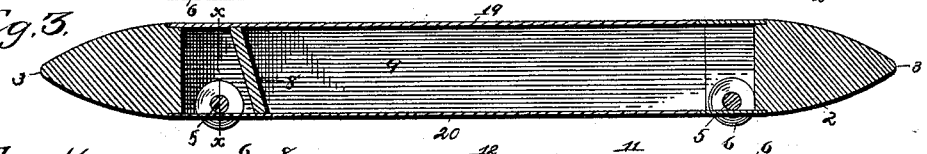


Fig 4

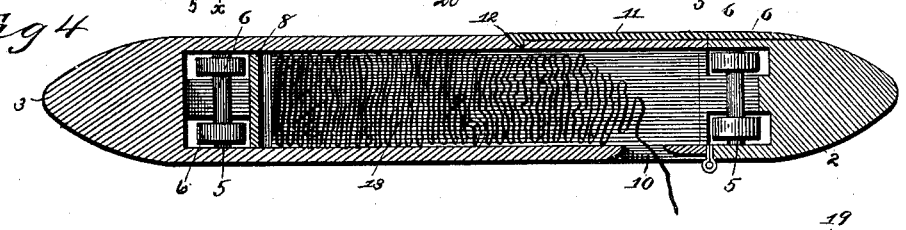


Fig 6

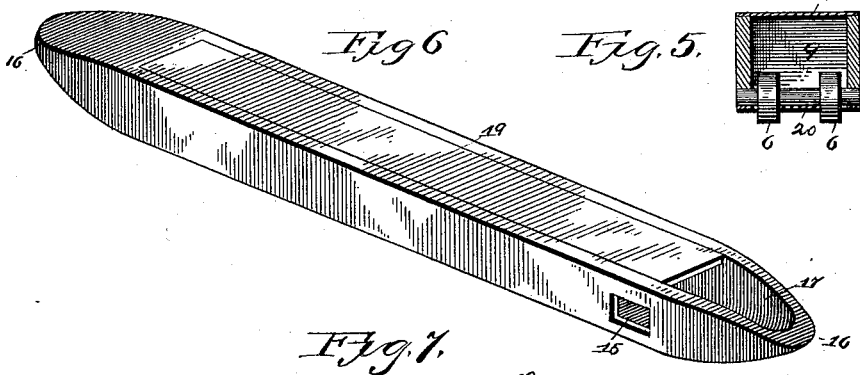
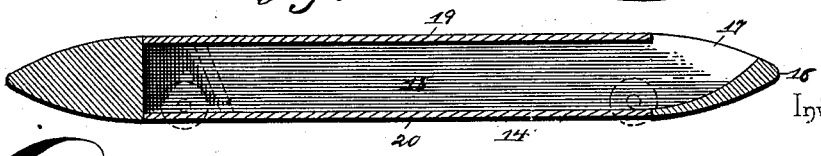


Fig. 5.

Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS WOOD, OF ARROWSMITH, ILLINOIS.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 422,481, dated March 4, 1890.

Application filed September 28, 1889. Serial No. 325,409. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WOOD, a citizen of the United States, residing at Arrowsmith, in the county of McLean and State of Illinois, have invented a new and useful Loom-Shuttle, of which the following is a specification.

This invention relates to shuttles for weaving rag-carpets; and it has for its object to construct a shuttle that may be used as a hand-shuttle or a fling-shuttle, and from which the rags or other material used as filling shall drift out nicely and uninterruptedly while in use.

The invention consists in the improved construction of the said shuttle, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of my improved shuttle. Fig. 2 is a bottom plan view of the same. Fig. 3 is a longitudinal vertical sectional view. Fig 4 is a horizontal sectional view. Fig. 5 is a vertical cross-section taken on the line *x* *x* in Fig. 3, the wheels or rollers being shown in elevation. Fig. 6 is a perspective view illustrating a modification. Fig. 7 is a longitudinal vertical sectional view of the latter.

Like numerals of reference indicate like parts in all the figures.

The body of my improved shuttle consists of a box 1 of suitable dimensions, and which may be constructed of wood or other suitable material, a wooden frame with sheet-metal top and bottom being probably preferable, as possessing the necessary qualifications of lightness and strength, while the sheet-metal top and bottom, being thin, make the box of greater capacity than would be the case if it were constructed wholly of wood. The box 1 is provided at one end with a hinged cover 2, and the ends of said box and cover are pointed or tapered in the usual manner, as shown at 3. The box and the cover are provided near their respective ends with bearings 4 for transverse shafts 5, having wheels or rollers 6, which project through slots 7 in the bottoms of the box and cover. The body 1 of the box is also provided with an interior transverse partition 8 to separate its interior compartment 9 from its rollers.

The body 1 of the box or shuttle is also provided in one of its sides with an opening or drift-hole 10, closely adjacent to the hinged cover 2, and the latter has a suitably-constructed spring latch or catch 11, adapted to engage a recess 12, formed in the side of the box 1.

The sewed rags or filling 13 is in operation placed in the box 1 and tamped firmly therein, the end being threaded through the opening or drift-hole 10. The cover being then closed, the shuttle is ready for use. When the shuttle is flung from one side to the other through the shed, the rollers or wheels 6 support it upon the warp-threads and enable it to move freely, and at the same time the filling drifts nicely and evenly through the opening 10 in the side of the shuttle. The latter may in practice be made large enough to hold a considerable quantity of the filling, and when empty it may be easily and quickly refilled.

By the modification shown in Figs. 6 and 7 of the drawings I simplify the construction by dispensing with the supporting wheels or rollers and with the hinged cover. The shuttle in this case consists simply of an oblong box 14, having the drift-hole 15 in one side thereof near one end and having the tapering or pointed ends 16. In the upper side of one of the ends, near which the drift-hole is formed, is an opening 17, through which the filling may be placed in the shuttle. The opening 17, being formed in one of the beveled or tapering ends, admits of the filling being readily introduced and tamped, as if the shuttle were provided with a cover. This modified form of shuttle may also, whenever desired, be provided with the transverse shafts having the supporting wheels or rollers and with the interior transverse partition, as shown in dotted lines in Fig. 7 of the drawings. The rollers opposite to the drift-hole may also, when desired, be covered in any suitable manner to prevent the filling catching therein.

In both constructions of my improved shuttle I prefer to construct the body of a frame 18, to which the top and bottom 19 and 20 are secured by nails, glue, or other suitable means, this being a cheaper and more satisfactory construction than could be attained by making it in a single piece.

In shuttles for weaving rag-carpet, as ordinarily constructed, the filling has been wound

upon the outside of the shuttle, and it has consequently been necessary to turn the latter several times in order to unwind the filling before each throw. By my improved construction this is avoided and the work may, therefore, be performed more rapidly. The filling around the outside of the shuttle would also to some extent interfere with its passage through the shed, while, on the other hand, when the shuttle was nearly empty its ends would be apt to catch in the chain-threads. By my improvement these disadvantages are obviated and a cheap, efficient, and serviceable shuttle is produced.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A shuttle consisting, mainly, of a box open at one end and provided with a drift-hole in one side near the said open end, substantially as set forth.

2. A shuttle comprising a box having one end open and provided with a hinged cover, and provided near said open end with a drift-hole formed in one of its sides, substantially as set forth.

3. A shuttle comprising a box open at one end for the introduction and tamping of the filling and having a drift-hole in one side, transverse shafts journaled in the sides of said box, and wheels or rollers upon said shafts extending through the bottom of the box, substantially as set forth.

4. A shuttle consisting, mainly, of a box having a hinged cover at one end and a drift-hole in one side, in combination with the transverse shafts and the supporting wheels or rollers, substantially as set forth.

5. A shuttle consisting, mainly, of a frame open at one end for the introduction and tamping of the filling and having a drift-hole on one side, and the top and bottom plates suitably secured to said frame, substantially as and for the purpose set forth.

6. A shuttle comprising, mainly, a box open at one end and having a drift-hole in one side near said open end, and a cover hinged to said open end and having a spring-latch, said box and cover being provided with transverse shafts having supporting wheels or rollers, and said box having a partition to separate said shaft and rollers from its interior compartment, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS WOOD.

Witnesses:
JOHN W. MOYER,
C. J. MOYER.