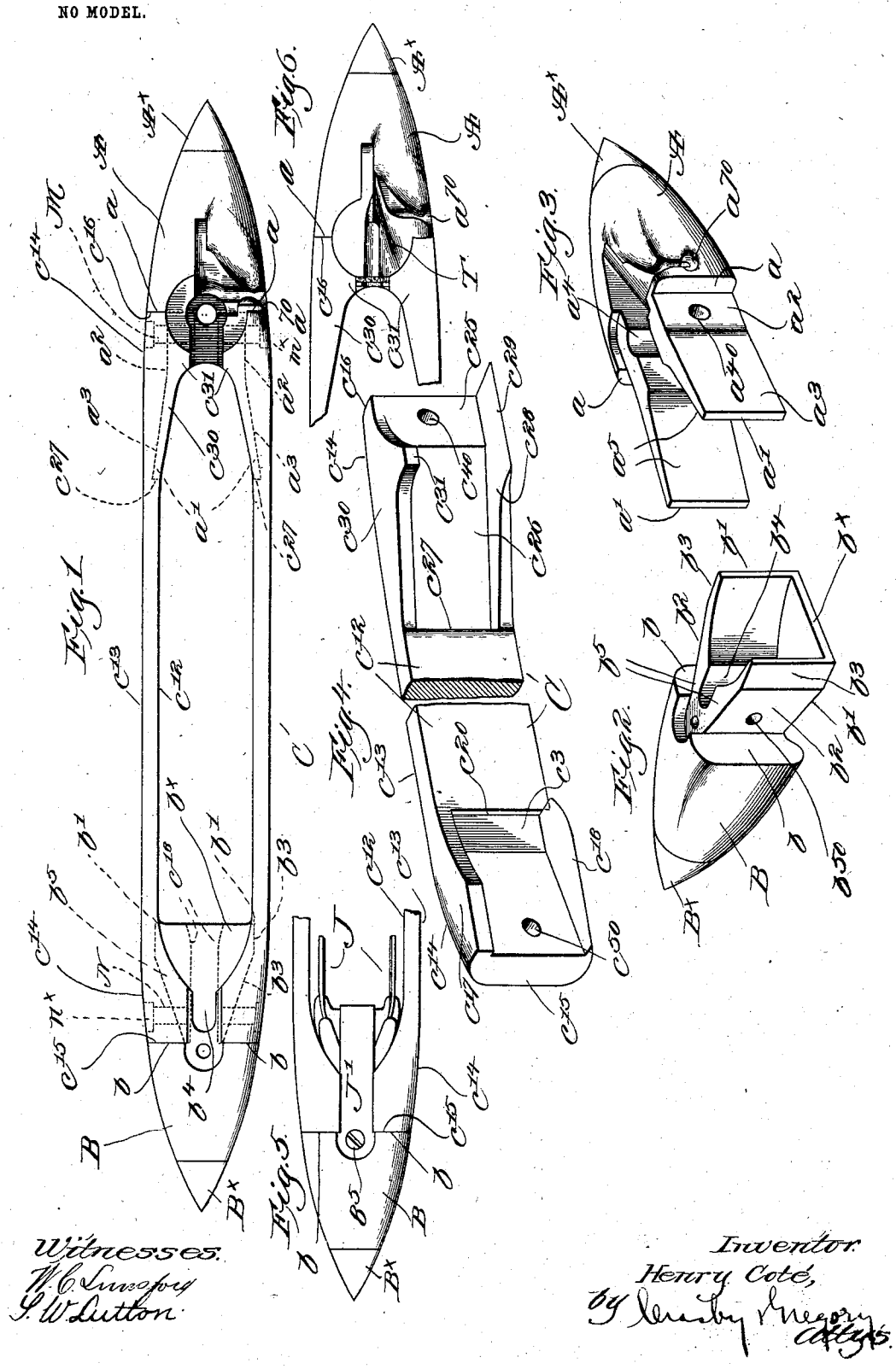
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H. CÔTÉ.

LOOM SHUTTLE.

APPLICATION FILED NOV. 28, 1902.

NO MODEL.



Witnesses.
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No. 728,371. Patented May 19, 1903.

UNITED STATES PATENT OFFICE.

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LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 728,371, dated May 19, 1903.

Application filed November 28, 1902. Serial No. 133,082. (No model.)

To all whom it may concern:

Be it known that I, HENRY CÔTÉ, a citizen of the United States, and a resident of Woonsocket, county of Providence, State of Rhode Island, have invented an Improvement in Loom-Shuttles, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a novel loom-shuttle, the construction and arrangement being such that the shuttle can be dismembered and a worn or broken member or part replaced by a new one.

The sides of loom-shuttles wear out much more rapidly than the other parts, and breakage almost invariably occurs in the side.

In accordance with my invention the shuttle is made of a plurality of parts, so fitted to each other that they can be rigidly connected for ordinary use, yet capable of being separated when desired for the removal of a broken or worn part and the substitution of a new part, thus obviating the present practice of discarding a shuttle whenever it has become broken or too much worn in any part.

The various novel features of my invention will be hereinafter described in the specification, and particularly pointed out in the following claims.

Figure 1 is a top or plan view of a loom-shuttle embodying one form of my invention shown as adapted for the attachment of a threading device and holding-jaws. Fig. 2 is a perspective view of one of the end members detached. Fig. 3 is a similar view of the other end member. Fig. 4 is a perspective view, centrally broken out, of one of the side members of the shuttle viewing its inner surface. Fig. 5 is a plan view of the left-hand end portion of the shuttle shown in Fig. 1 with the holding-jaws in place, and Fig. 6 is a similar view of the right-hand end portion of the shuttle with a self-threading block in place.

In the present embodiment of my invention the shuttle is composed of two like side members and two end members fitted to each other when assembled to make a strong and durable whole, the separable parts being rigidly yet detachably connected by transverse bolts.

While I have herein shown my novel loom-shuttle as more particularly adapted for use in an automatic filling-replenishing loom of the "Northrop" type, such as in United States Patent No. 529,940, yet it is to be understood that the invention is not restricted exclusively to such particular type of shuttle.

Referring to Figs. 1 to 4, inclusive, the end members A and B are made of wood and pointed or tapered at their outer extremities as usual in loom-shuttles and shod with conical metallic tips $A^{\times}$ $B^{\times}$, respectively, and the end member B is cut away to leave transverse or lateral upright shoulders b. Between the shoulders of the member B the wood is extended to form two like divergent tongues or extensions b', shown as connected at their lower edges by a transverse shelf $b^{\times}$. Externally the extensions have longitudinally-flared faces b^2 and parallel flat faces b^3, extending from the faces b^2 to the tips of the tongues or extensions. Internally the latter are socketed at b^4 for a purpose to be described, and it will be seen from an inspection of Fig. 2 that the upper edges b^5 of the extensions are somewhat lower than the top of the main portion B of the end member.

As best shown in Fig. 3, the end member A is cut away at its inner end to present two transverse upright shoulders a and two tongues or extensions a' between them and diverging, the outer surfaces of the tongues having flat parallel faces a^2 and flaring faces a^3, extending therefrom to the tips of the tongues. Externally the tongues are cut out or shaped to present a recess a^4, which extends into the main portion of the member A, and the inner faces of the tongues are flared from the outer end of the recess, as at a^5. The elongated side members C are alike and only one of them will be described in detail. For the greater part of its length the inner and outer faces c^{12} c^{13} are substantially parallel, as is common in loom-shuttles, the outer face curving inward at each end at c^{14} to the flat transverse ends c^{15} c^{16}, the end c^{15} abutting against the shoulder b of the end member B, while the end c^{16} abuts against the

shoulder a of end member A when the parts are assembled, as shown in Figs. 1, 5, and 6. Adjacent the end c^{15} the side member C is socketed to leave an inturned wing c^{17} at its upper edge and a thinner wing c^{18} at its lower edge, the bottom of the socket being flattened at c^3 and terminating in an upright shoulder c^{20}. When the side member is applied to the end member B, the tip of a tongue b' abuts against the shoulder c^{20} and the face c^3 comes against the flat face b^3 of the tongue, as shown in Fig. 1, the tongue entering the socket and being overlapped by the wings c^{17} and c^{18}, while the bottom of the socket is opposed to the flaring face b^2. The wing c^{17} fills up the space on top of the tongue to the level of the upper suface of the member B, and the wing c^{18} is brought to a thin edge to project beneath the tongue at the bottom of the shuttle underneath the shelf $b^{\times}$.

A screw-bolt N (see dotted lines, Fig. 1) is passed through counter bored holes c^{50} in the side members and through a transverse hole b^{50} in the end member B (see Fig. 2) to hold the side members rigidly in place, with the end member between them, a nut $n^{\times}$ being screwed onto the threaded end of the bolt. At its other end the side member is cut away to form a socket, having a portion c^{25} of its bottom parallel to the longitudinal axis of the shuttle and a longer longitudinally-inclined portion c^{26}, terminating in a shoulder c^{27}, Figs. 1 and 4. A wing c^{28} projects inward from the bottom of the side member, (see Fig. 4,) it being shown as brought to a thin edge at c^{29} for a portion of its length, and a second overhanging wing c^{30} is formed at the top of the side member, said wing being relatively thick and having a projection c^{31} on its inner edge between its ends.

When the side members and the end member A are assembled, the tongues a' enter the sockets of the former, the parts c^{25} and c^{26} being opposed to the faces a^2 and a^3, respectively, of the tongues, the tips of the latter abutting against the shoulders c^{27}, while the ends c^{16} of the side members bear against the lateral shoulders a of the end member. The wings c^{28} extend beneath the tongues and the wings c^{30} above them, as clearly shown in Figs. 1 and 6, the projections c^{31} approaching each other to leave between them an opening for the thread to pass from the open body of the shuttle to the delivery-eye a^{70}, Fig. 3.

A transverse screw-bolt M (shown in dotted lines, Fig. 1) is extended through counterbored holes c^{40} in the side members and through holes a^{40} in the tongues a' (see Fig. 3) to rigidly connect the end member A and the two side members, a nut $m^{\times}$ retaining the bolt in place.

Herein I have shown the end member A recessed properly to receive a threading-block T, Fig. 6, which may be of any well-known construction—such, for instance, as shown in United States Patent No. 697,713—the bolt M also retaining the threading-block in place. Also the end member B is shaped to receive holding-jaws J for the head of a filling-carrier, the bolt N retaining the jaws in position, and the guide J′ is held in place by a screw 85, Fig. 5, substantially as in United States Patent No. 628,772.

The particular form of threading-block or holding-jaws is immaterial so far as my present invention is concerned, as I have illustrated one form of such devices to show their use in a shuttle embodying my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A multipart loom-shuttle comprising separable side and end members, the latter having tongue-like extensions and the side members having sockets, to receive said extensions, and means to rigidly and detachably connect the side members with the end members.

2. A multipart loom-shuttle comprising end members having transverse shoulders and inwardly-extended tongues, side members interiorly socketed at their ends to receive the tongues, the ends of the sides abutting against the transverse shoulders, and a removable bolt to rigidly connect the side members with an end member.

3. A multipart loom-shuttle comprising end members having pointed tips, lateral, upright shoulders at their inner ends, longitudinally-extended, divergent tongues between the shoulders, elongated side members socketed to receive the tongues and having their ends squared to abut against the lateral shoulders, and means to detachably and rigidly connect the side members to the two end members.

4. A multipart loom-shuttle comprising wooden side and end members, metallic conical tips for the outer extremities of the latter, tongue-like extensions at the inner extremity of each end member, the side members having their inner faces socketed to receive said extensions, inturned wings on the side members, to project over and beneath the extensions, and means to rigidly and detachably connect said end and side members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY CÔTÉ.

Witnesses:
GEORGE OTIS DRAPER,
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