

(No Model.)

J. WAMICH.
LOOM SHUTTLE.

No. 304,878.

Patented Sept. 9, 1884.

Fig. 1.

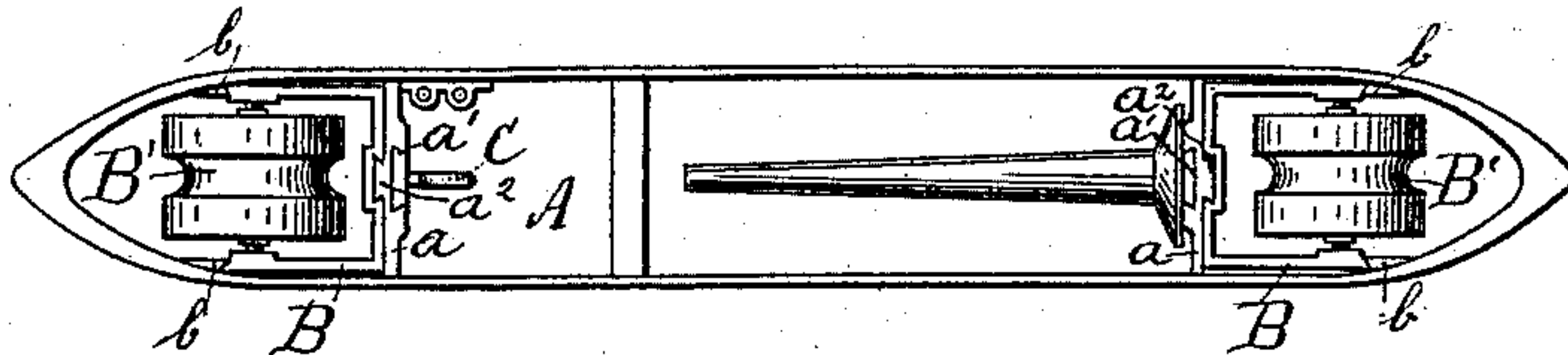


Fig. 2.

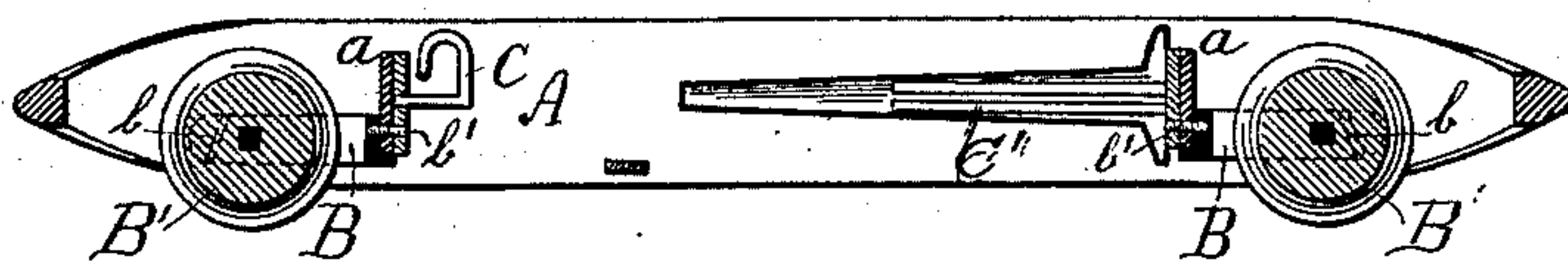
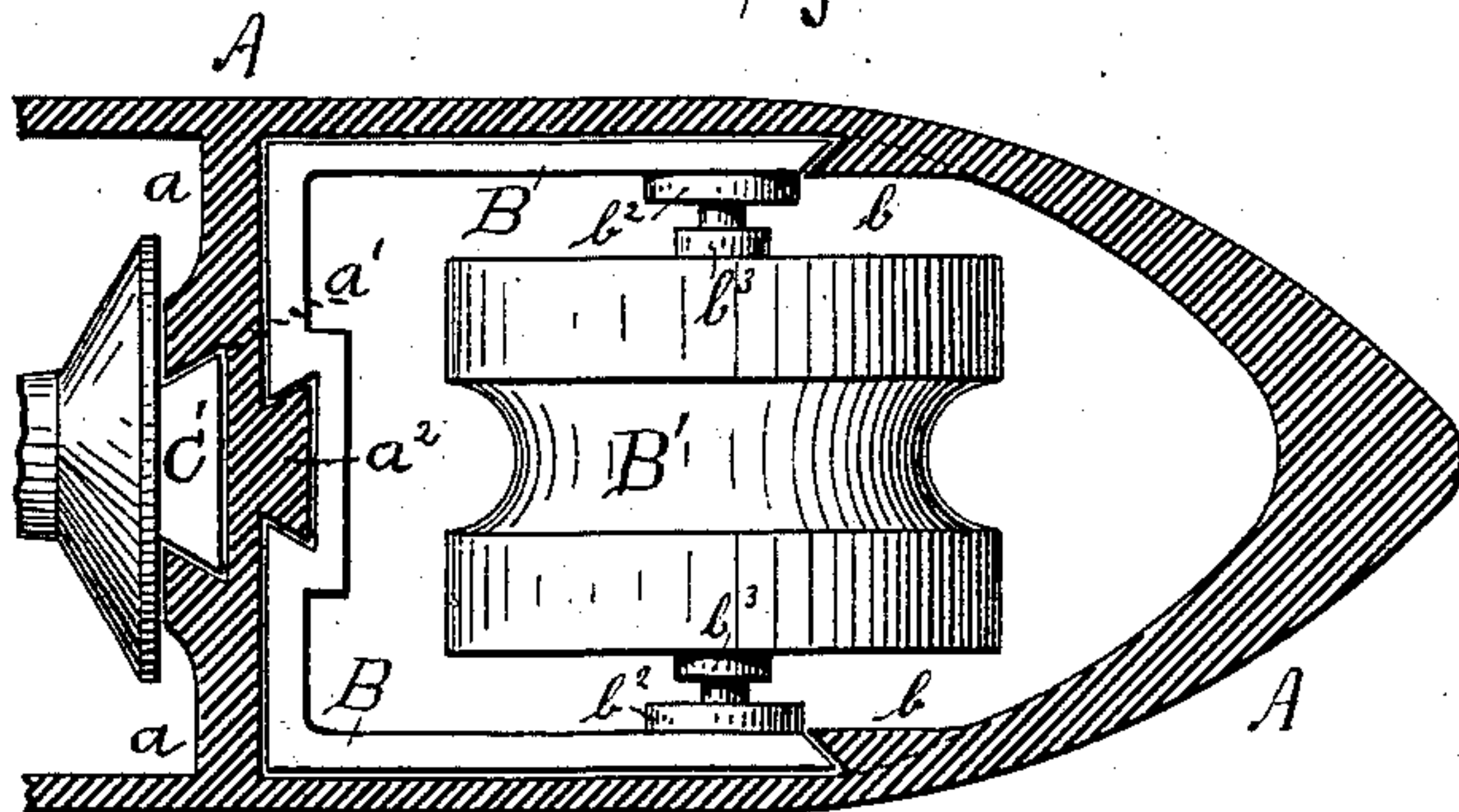


Fig. 3.



WITNESSES:

Frederick N. Rosenbaum.
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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHANN WAMICH, OF AACHEN, PRUSSIA, ASSIGNOR OF ONE-HALF TO
FRITZ KILLING, OF DELSTERN, GERMANY.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 304,878, dated September 9, 1884.

Application filed August 9, 1883. (No model.) Patented in Germany February 11, 1881, No. 15,619.

To all whom it may concern:

Be it known that I, JOHANN WAMICH, a subject to the King of Prussia, residing at Aachen, Prussia, German Empire, have in-
5 vented certain new and useful Improvements in Loom-Shuttles (for which I have obtained a patent in the German Empire, No. 15,619, dated February 11, 1881,) of which the following is a specification.

10 This invention has reference to shuttles for looms; and the invention consists of a cast-metal shuttle-shell having transverse bridges and abutments cast in one piece therewith, said bridges having dovetail seats for the
15 roller-frames, bobbin-spindle, and thread-eye, which parts are further secured to the bridges by means of fastening-screws, as will more fully appear hereinafter, and finally be pointed out in the claims.

20 In the accompanying drawings, Figure 1 represents a bottom view of my improved loom-shuttle, and Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a longitudinal section of one end of the shuttle, with
25 the roller and roller-frame in elevation, showing the connection of the roller-frame with the shuttle-shell on a larger scale.

Similar letters of reference indicate the corresponding parts.

30 In the drawings, A represents the shell of a loom-shuttle, which shell is made of malleable cast-iron, and provided with two transverse bridges, *a a*, that are cast integral therewith, each of the bridges having a dovetail
35 groove, *a'*, on one side and a dovetail projection, *a''*, on the other side. The inner sides of the walls of the shell A are provided near the ends of the same with inclined abutments *b b*, which, in connection with the dovetail projections *a''*
40 of the bridges *a a*, serve to retain U-shaped roller-frames B. The transverse piece or base of each roller-frame B fits by a dovetailed groove on the dovetail projection *a''* of the bridge, while its beveled ends are retained
45 by the inclined abutments *b b*, as shown clearly in Fig. 3. The roller-frames B B are further secured in their position by clamp-screws *b'*, which pass through the bridges *a*, and take

into screw-holes in the roller-frames. At its outer ends each roller-frame B is provided
50 with bearings *b''* for the shaft *b'''* of a roller, B', which projects below the bottom edge of the shell A. In the dovetail groove *a'*, at the inner side of one of the bridges, a thread-eye, *c*, is inserted, and is secured therein by the
55 same screw, *b'*, which holds the roller-frame B at that end of the shuttle. In the dovetail groove *a'* of the other bridge *a* the dovetailed base of the bobbin-spindle *c'* is inserted, the bobbin being placed in position on the spindle
60 in the usual manner, said spindle being secured by the same screw, *b'*, that holds the adjacent roller-frame B.

Between the rollers and the ends of the shuttle-shell sufficient space is left in which the
65 waste from the warp and weft threads can collect without exerting a brake action on the rollers.

The advantages of this invention are that the shuttle-shell is cast in one piece with
70 the bridges and abutments, so that the roller-frames, the thread-eye, and the bobbin-spindle can readily be inserted and removed to be replaced by new ones when worn out.

Having thus described my invention, I claim
75 as new and desire to secure by Letters Patent—

1. A cast-metal shuttle, A, having transverse dovetailed bridges *a a* and abutments
80 *b b*, all cast in one piece, substantially as described.

2. The combination, with a shuttle-shell, A, provided with abutments *b b* and with transverse bridges *a a*, having dovetail projections
85 *a''*, of roller-frames B B, means for securing said frames in place, and rollers B' B', substantially as described.

3. The combination of a shuttle-shell, A, having transverse bridges, said bridges having dovetail grooves at their inner sides, with the thread-eye *c*, bobbin-spindle, and fast-
90 ening-screws *b'*, substantially as described.

4. The combination of a shuttle-shell, A, having transverse bridges and abutments, said bridges having dovetail projections at one side and dovetail grooves at the other,
95 with roller-frames secured to the bridges and

abutments, rollers carried by said frames, a thread-eye and bobbin-spindle secured to the inner sides of the bridges, and fastening-screws by which one roller-frame and the thread-eye
5 and the other roller-frame and the bobbin-spindle are attached to the respective bridges, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHANN WAMICH.

Witnesses:

JAMES T. DUBOIS,
ELISE BRAUN.