

(No Model.)

J. C. SERGESON.
SHUTTLE.

No. 561,137.

Patented June 2, 1896.

Fig. 1.

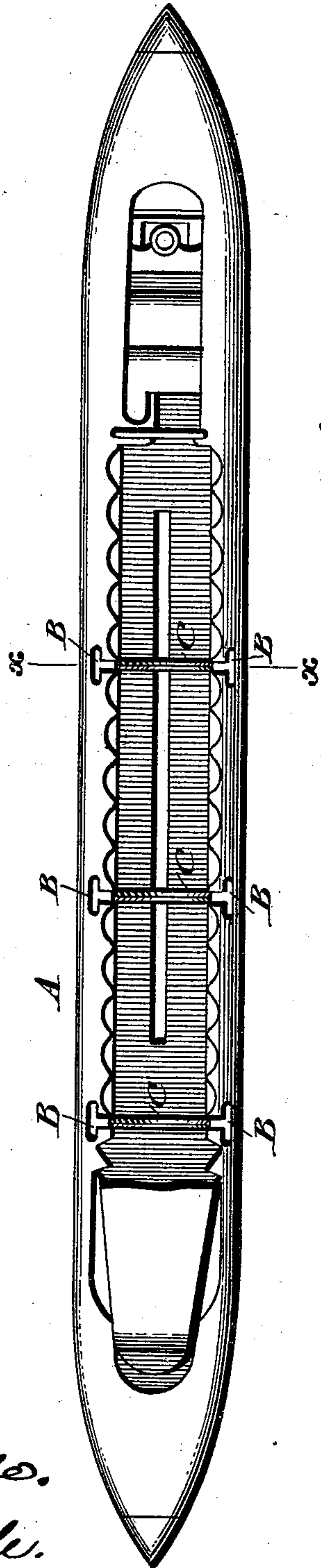


Fig. 3.

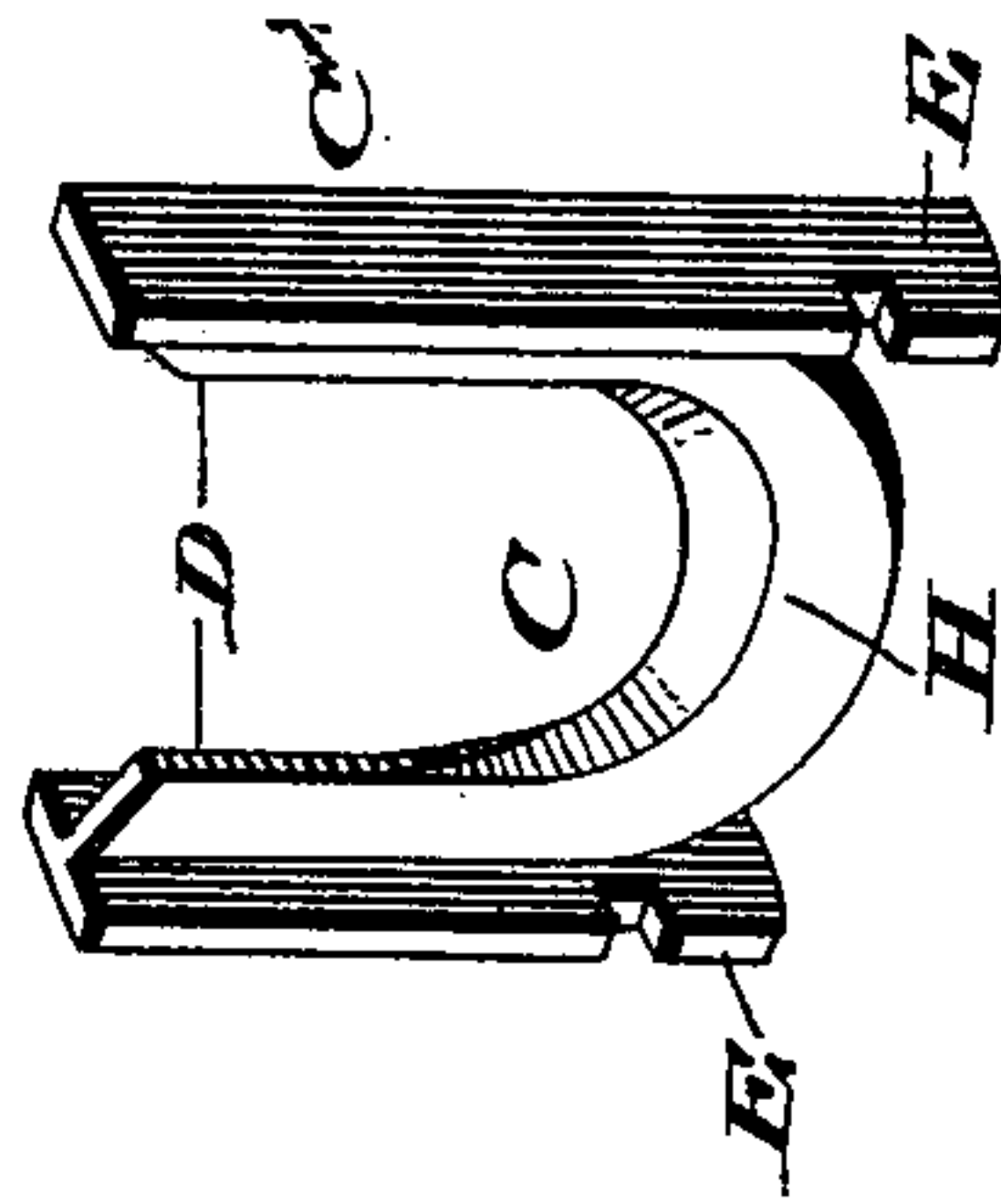
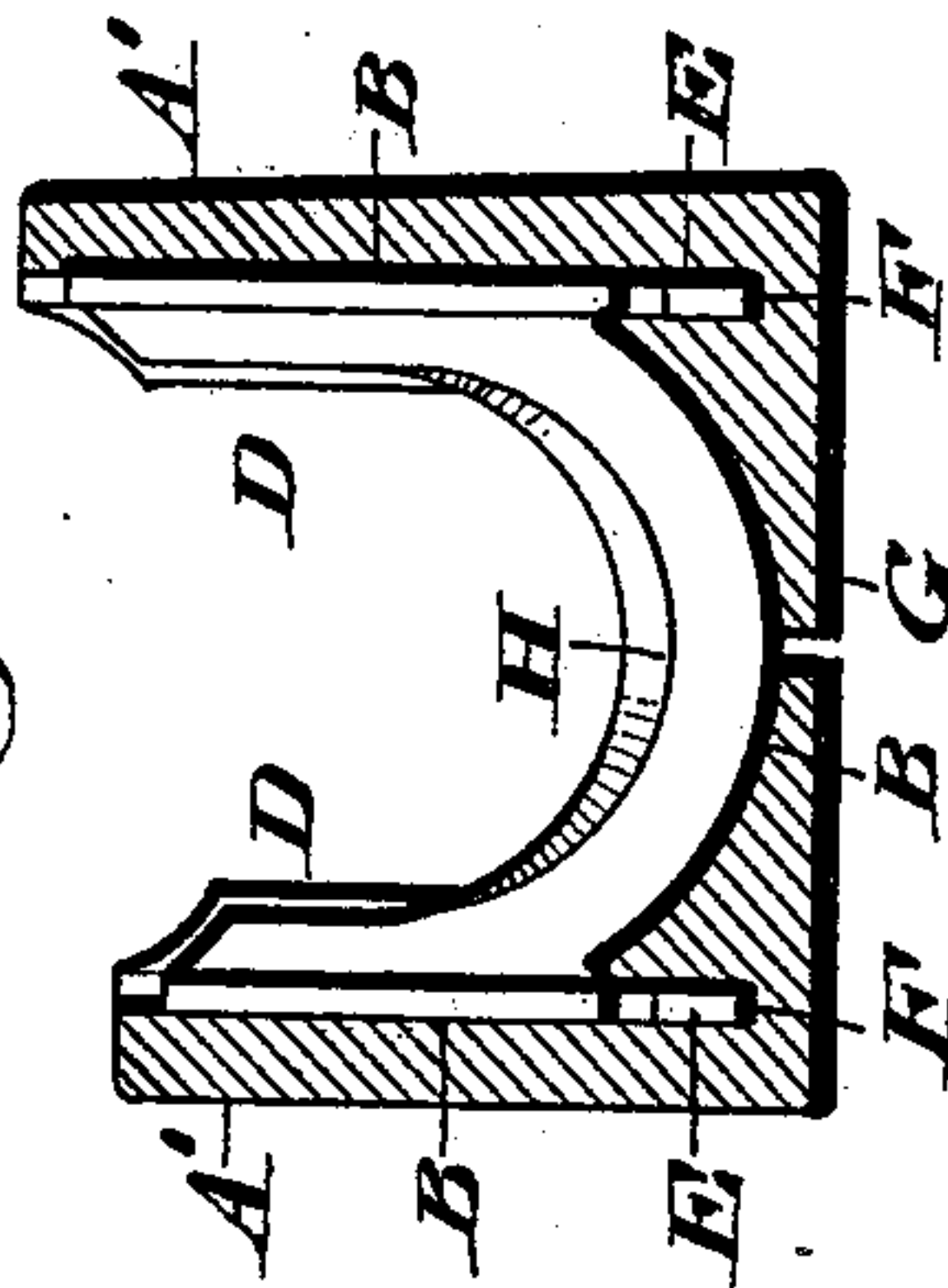


Fig. 2.



WITNESSES:

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SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 561,137, dated June 2, 1896.

Application filed February 24, 1896. Serial No. 580,317. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. SERGESON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Shuttles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to an improvement in shuttles, whereby when yarn, thread, or stock is used therein in wet condition the body of the shuttle is prevented from warping or becoming injuriously irregular on its outer face.

Figure 1 represents a top or plan view of a shuttle embodying my invention. Fig. 2 represents a transverse section thereof, on an enlarged scale, on line *xx*, Fig. 1. Fig. 3 represents a perspective view of a detached portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a shuttle, which, excepting the feature of my invention applied thereto, is of usual construction.

The inner face of the side and base of the body of the shuttle has grooves B formed therein, the same receiving the braces or stays C, which consist of somewhat V-shaped pieces of metal or other rigid material, it being noticed that the side limbs D of said stays have projecting flanges thereon, so as to make said limbs T shape in cross-section, and the side grooves B are similarly shaped, so that said limbs which occupy said side grooves are interlocked with the side wall A' of the body of the shuttle, thus preventing said walls from springing apart and warping or materially warping. Again there depend from the limbs D the legs E, which enter the grooves F in the

side portion of the base G of the body of the shuttle. Hence, as the limbs D are connected at bottom by the webs H of the stays, said legs E serve to resist the tendency of the base of the bottom to swell or expand laterally. By these means the shape of the body of the shuttle is preserved and caused to run true in the raceway which it occupies.

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

1. A shuttle having grooves in its opposite sides and a brace having side limbs locking in said grooves, and provided with a web connecting said side limbs, said parts being combined substantially as described.

2. A shuttle having grooves in its opposite sides, and a brace having T-shaped limbs fitting in said grooves, and a web or cross-piece connecting said limbs, said parts being combined substantially as described.

3. A stay for a shuttle-body, consisting of side limbs and a bottom web connecting the same, said limbs being provided with projecting flanges adapted to interlock with the side walls of said body, substantially as described.

4. A shuttle having grooves in its opposite sides, and a brace having limbs locking in said grooves, a web connecting said limbs near the lower ends thereof, and legs on said limbs below said web, said parts being combined substantially as described.

5. A stay for a shuttle-body, formed of side limbs provided with projecting flanges, a web connecting the bottom thereof and depending legs, substantially as described.

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Witnesses:

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