

(No Model.)

J. B. DAUDELIN.
SELF THREADING LOOM SHUTTLE.

No. 388,539.

Patented Aug. 28, 1888.

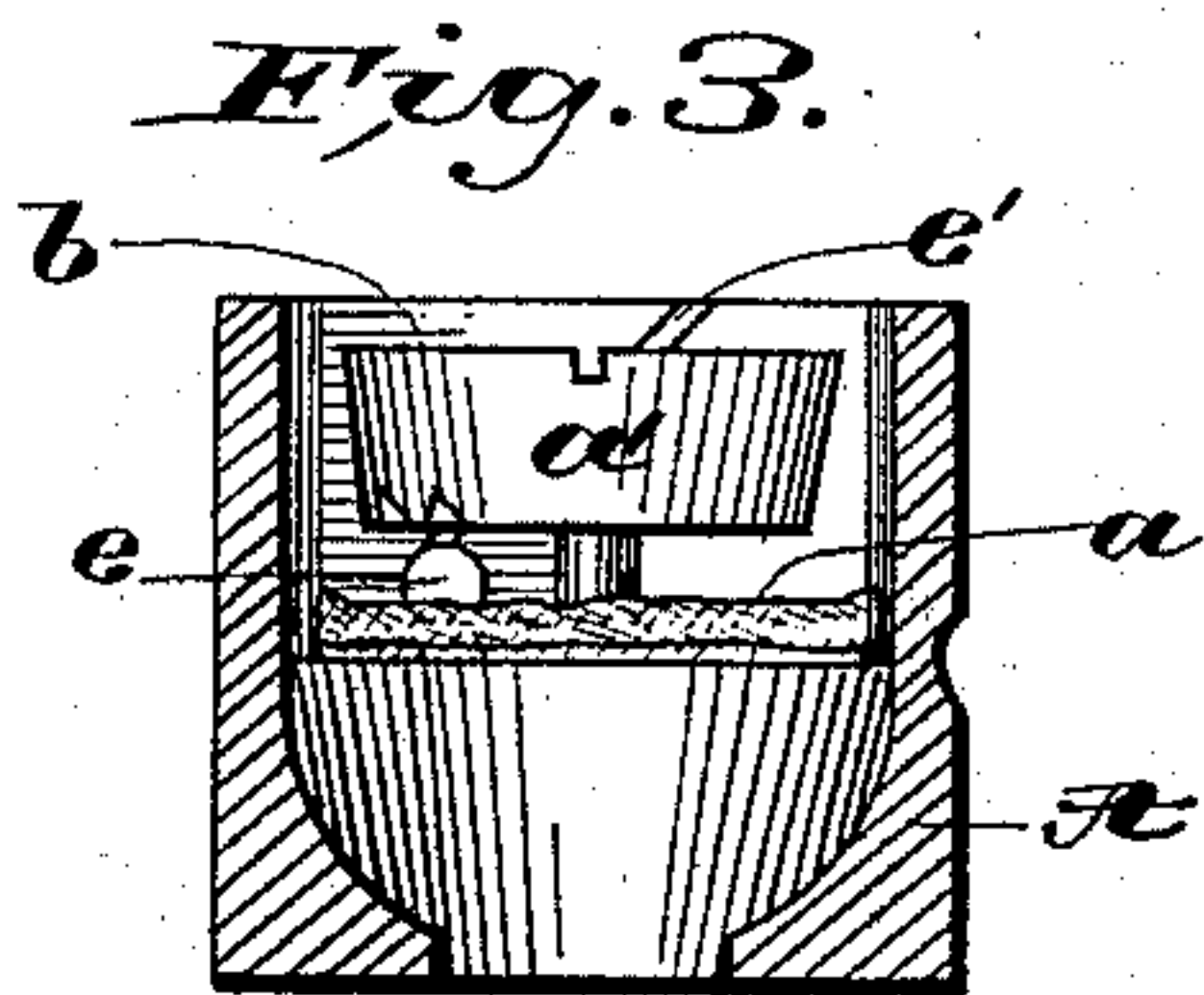
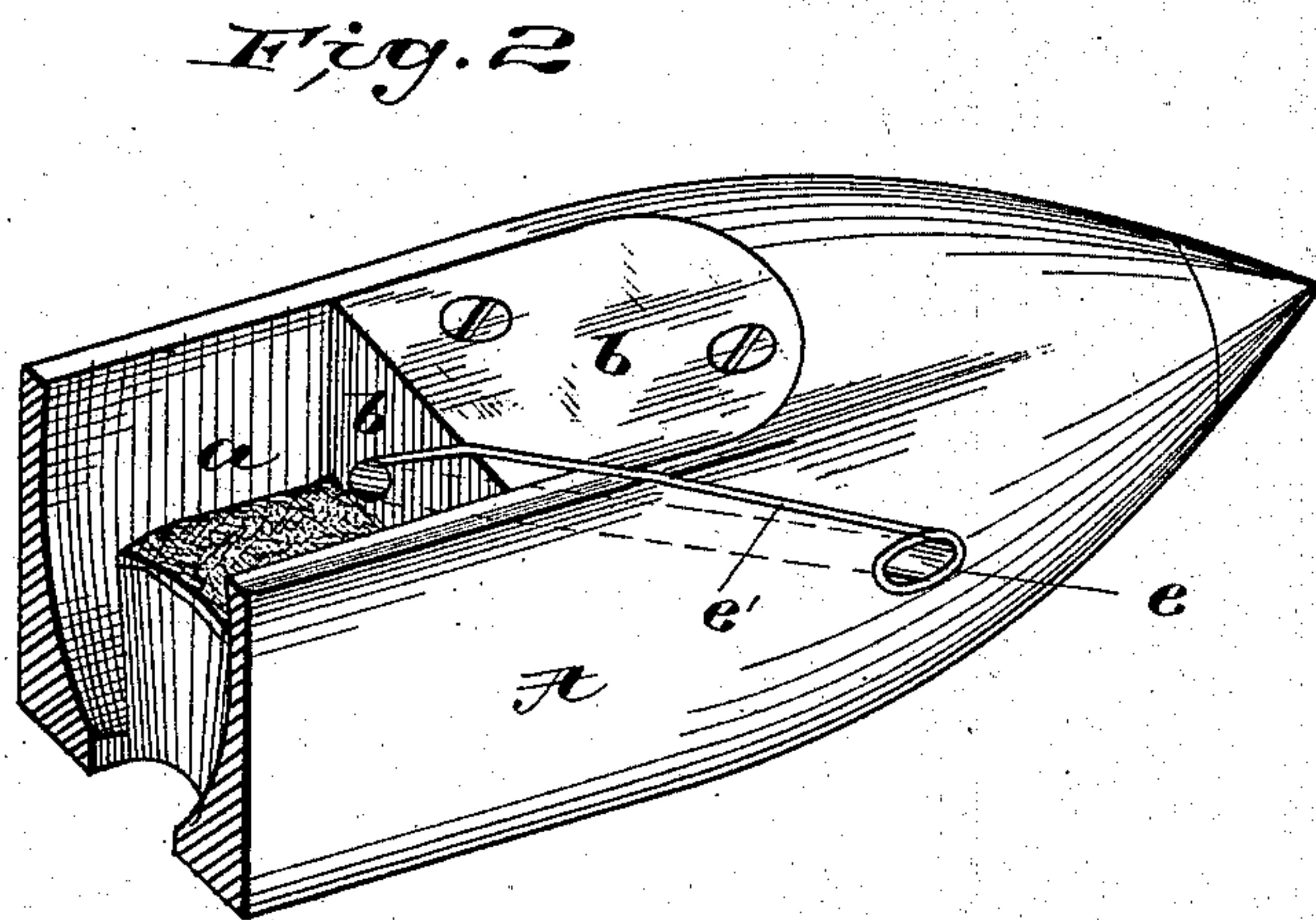
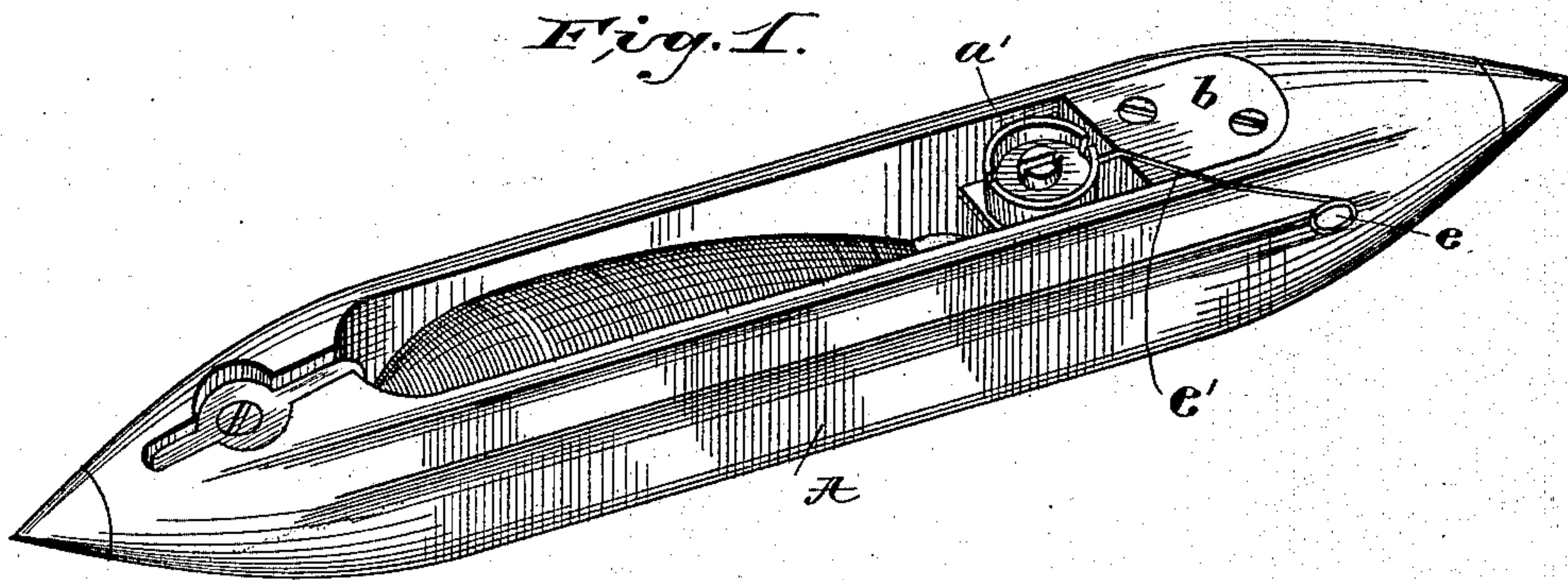
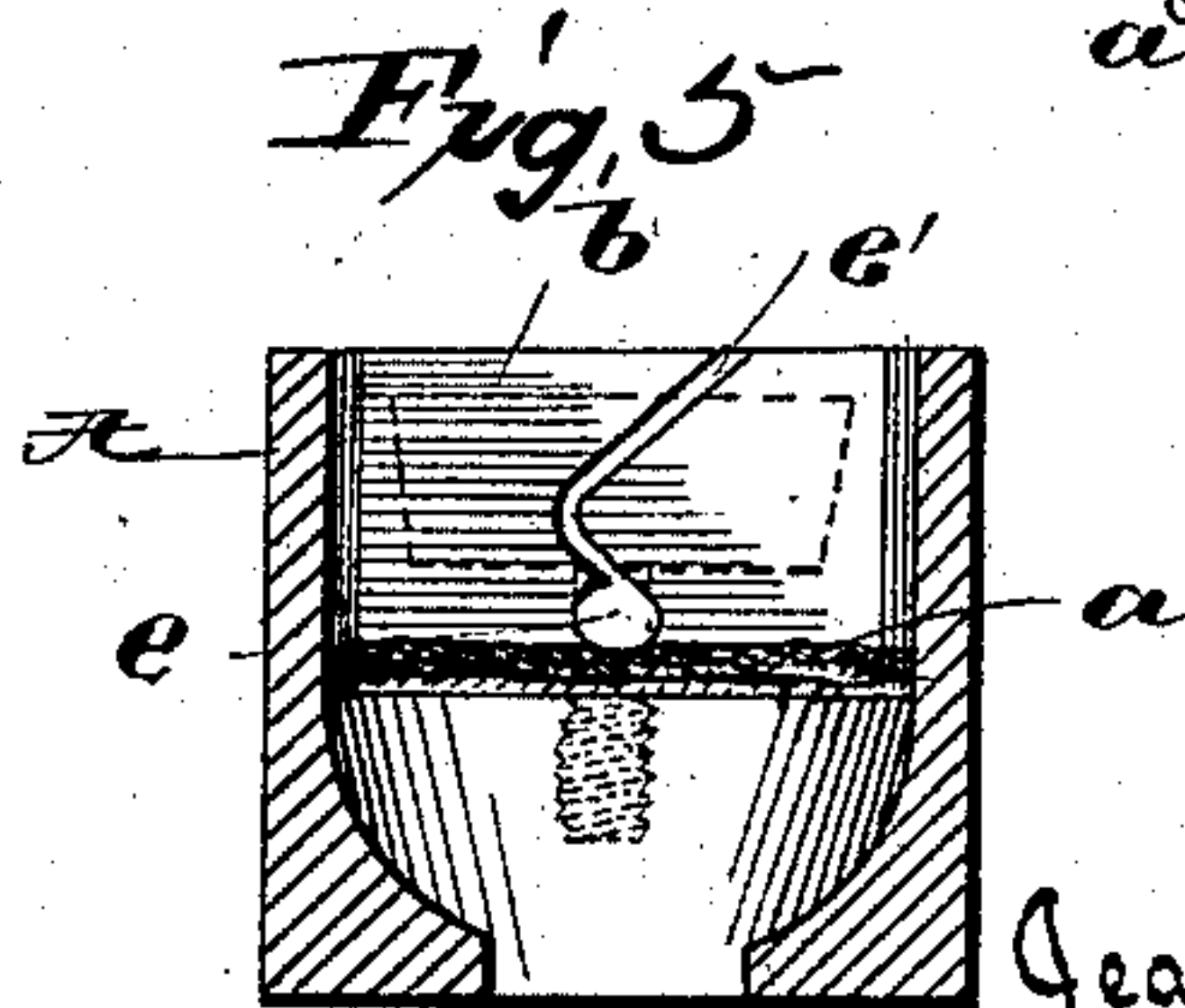
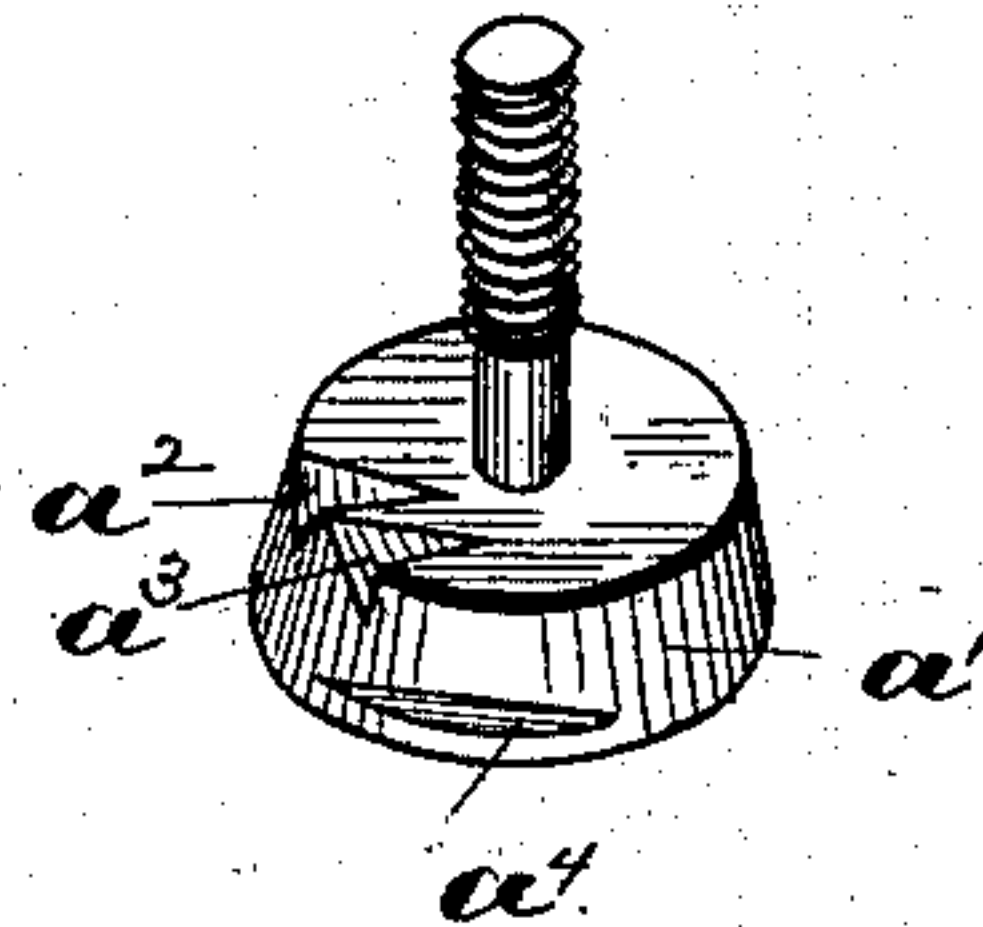


Fig. 4.



Witnesses:
E. Walker.
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Inventor:
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UNITED STATES PATENT OFFICE.

JEAN BAPTISTE DAUDELIN, OF FALL RIVER, MASSACHUSETTS.

SELF-THREADING LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 388,539, dated August 28, 1888.

Application filed October 6, 1887. Serial No. 251,617. (No model.)

To all whom it may concern:

Be it known that I, JEAN BAPTISTE DAUDELIN, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Self-Threading Loom-Shuttles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in self-threading loom-shuttles; and it consists in certain means for controlling and guiding the thread to the delivery-eye of the shuttle.

In the accompanying drawings I have shown two forms in which I have contemplated applying my invention, and I have fully disclosed the same in the following specification and claims.

In the drawings, Figure 1 is a perspective view of a loom-shuttle with my improvements applied thereto. Fig. 2 is an enlarged view of so much of a shuttle as is necessary to illustrate my invention. Fig. 3 is a transverse sectional view, and Fig. 4 is a detailed view, of the thread-guiding post. Fig. 5 is a view similar to Fig. 3 of a modified construction.

A is the shuttle-body, of any preferred construction, as is also the spindle and spring. The shuttle-body in front of the point of the spindle is cut away, as shown, to form the recess *a* to receive the thread-post *a'*. The front wall of this recess is covered with a metal plate, *b*, which is extended along the top of the shuttle a short distance, where it is countersunk, so that its outer surface is flush with the surface of the shuttle. The passage to the delivery-eye *e* of the shuttle is through an opening in the vertical part of plate *b*, a little to one side of the point of the spindle. This passage extends forward in an inclined direction to the side of the shuttle communicating with the delivery-eye, the said eye being located, as shown, forward of the recess or nearer the point of the shuttle. A narrow slit, *e'*, is made through the plate *b* and shuttle-body following the general course of the delivery-eye, which it enters tangentially. The delivery-eye may be lined with metal and the whole or part of the passage leading thereto. The direction of this

passage need not be in a straight line, but should not so far diverge from it that the slit cannot be made to easily communicate therewith through its entire length. The thread-post is provided with a head the periphery of which inclines inwardly from top to bottom, and on the under side this head is provided with two notches, *a²* *a³*, which have each a straight or vertical side. The post is turned to such a position that these notches are on the side of the post on which the thread passes, and they serve to catch the thread as it is unwound and hold it from passing out from under the head of the post. I also may provide the side of the head with a horizontal groove, *a⁴*, with a straight horizontal upper wall to catch the thread in case it should pass out from under the head of the post and prevent it from rising above the head of the post.

The operation of threading the shuttle will be apparent from the foregoing description, and is as follows: The operator holding the shuttle with the delivery-eye toward him passes the thread over or beyond the thread-post and draws it toward him until it engages the threading slit *e'*, when, on further drawing it, it passes into the delivery-eye. The periphery of the head of the thread-post being inclined, the drawing of the thread against the same in the act of threading tends to draw the thread downward and beneath said head.

It will be observed that the opening through plate *b*, forming part of the delivery-passage, is at one side of the center of the shuttle. The thread is thus drawn against the side nearest the threading-post and the threading-slit entering at a tangent on the opposite side, there is little or no liability of the thread leaving the passage through the threading-slit.

In Fig. 5 I have shown a slight modification. In this construction the opening in the plate is made at the center or a little to the other side of the same from that in which it is located in the other form, and the threading-slit is made to enter the opening in plate *b* at the opposite side of the same. In this form the thread passes from the spindle to the thread-post and from that to the opening in the plate *b*, the contact with the post serving to keep the thread against the side of the opening opposite that at which the threading-slit

enters. The function of the plate is to strengthen the parts and prevent the splintering and roughening of the sides of the threading-slit.

I do not desire to limit myself to the exact forms shown, as they may be considerably varied without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent, is—

10 1. A self-threading shuttle having a recess, *a*, a plate lining the front wall of said recess, an opening through the plate, and an opening through the shuttle-body extending forward in an inclined direction to the side of the shuttle-body and communicating with the delivery-eye of the shuttle, said eye being located forward of the recess or nearer the shuttle-point, and a threading-slit through the plate and the shuttle-body communicating with the opening in the plate and with the delivery-eye and intersecting the latter throughout the length thereof, substantially as described.

25 2. A self-threading shuttle having a recess, *a*, a plate lining the front wall of said recess, an opening through the plate, and an opening through the shuttle-body extending forward

in an inclined direction to the side of the shuttle-body and communicating with the delivery-eye of the shuttle, said eye being located forward of the recess or nearer the shuttle-point, and a threading-slit through the plate and the shuttle-body communicating with the opening in the plate and with the delivery-eye and intersecting the latter throughout the length thereof, and a headed thread-post in said recess of the shuttle, substantially as described. 30 35

3. The combination, with a shuttle having a recess, *a*, and an opening in said recess substantially in line with the spindle communicating with the delivery-eye of the shuttle, of a headed thread-post located in said recess and provided with thread-engaging notches on the under side of the head to prevent the thread from becoming disengaged from the head of the post, substantially as described. 40 45

In testimony whereof I affix my signature in presence of two witnesses.

JEAN BAPTISTE DAUDELIN.

Witnesses:

JOSEPH A. LABBE,
PHILOMEN DION.