

No. 756,592.

PATENTED APR. 5, 1904.

J. B. DAUDELIN.
SELF THREADING SHUTTLE.
APPLICATION FILED NOV. 11, 1903.

NO MODEL.

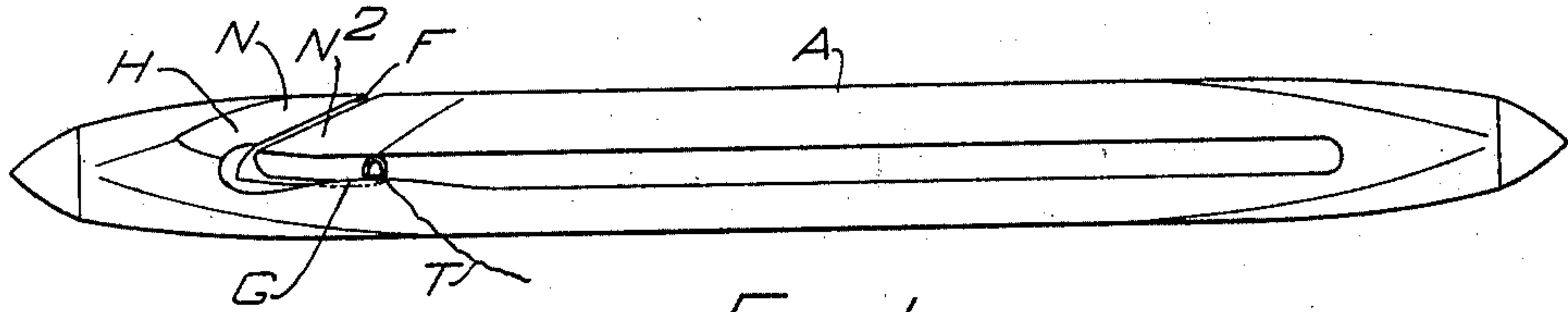


FIG. 1.

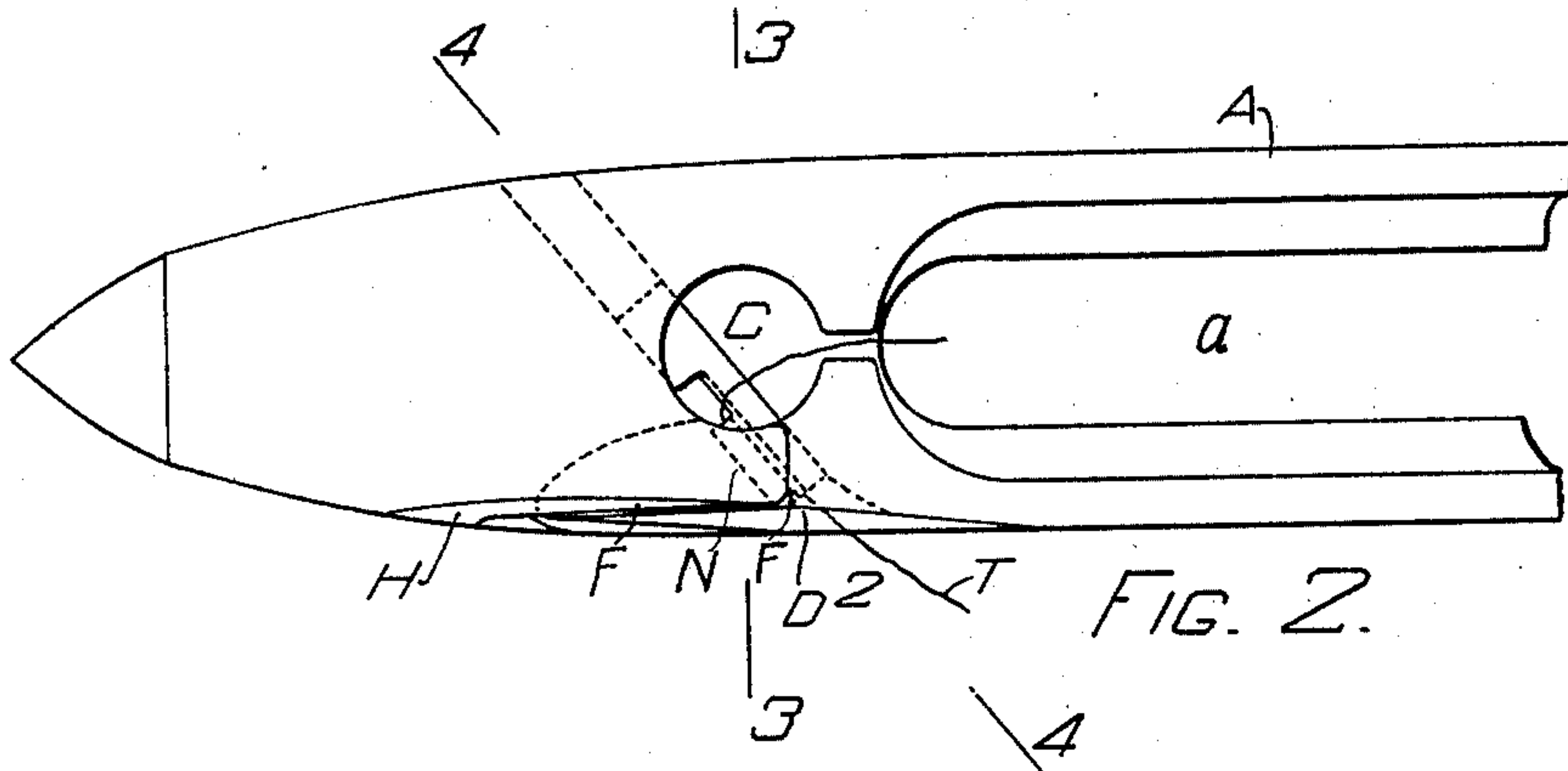


FIG. 2.

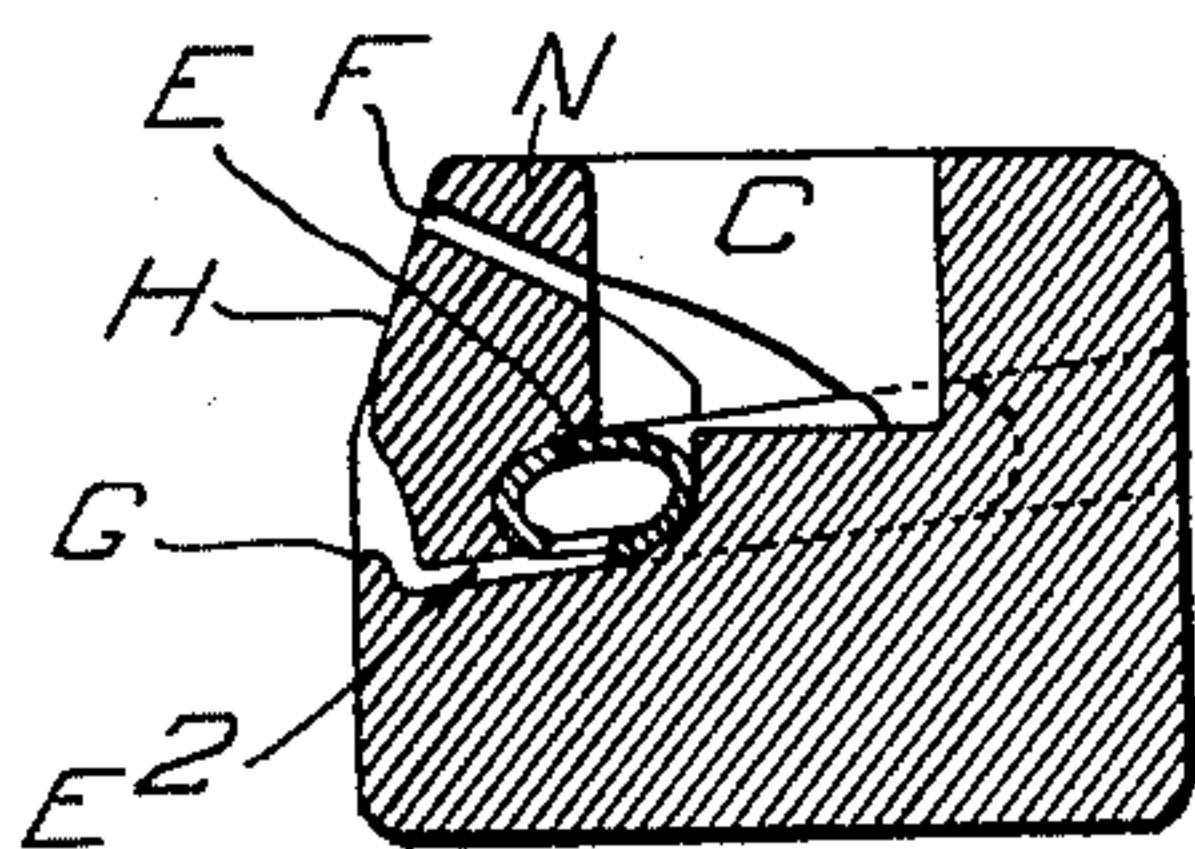


FIG. 3.

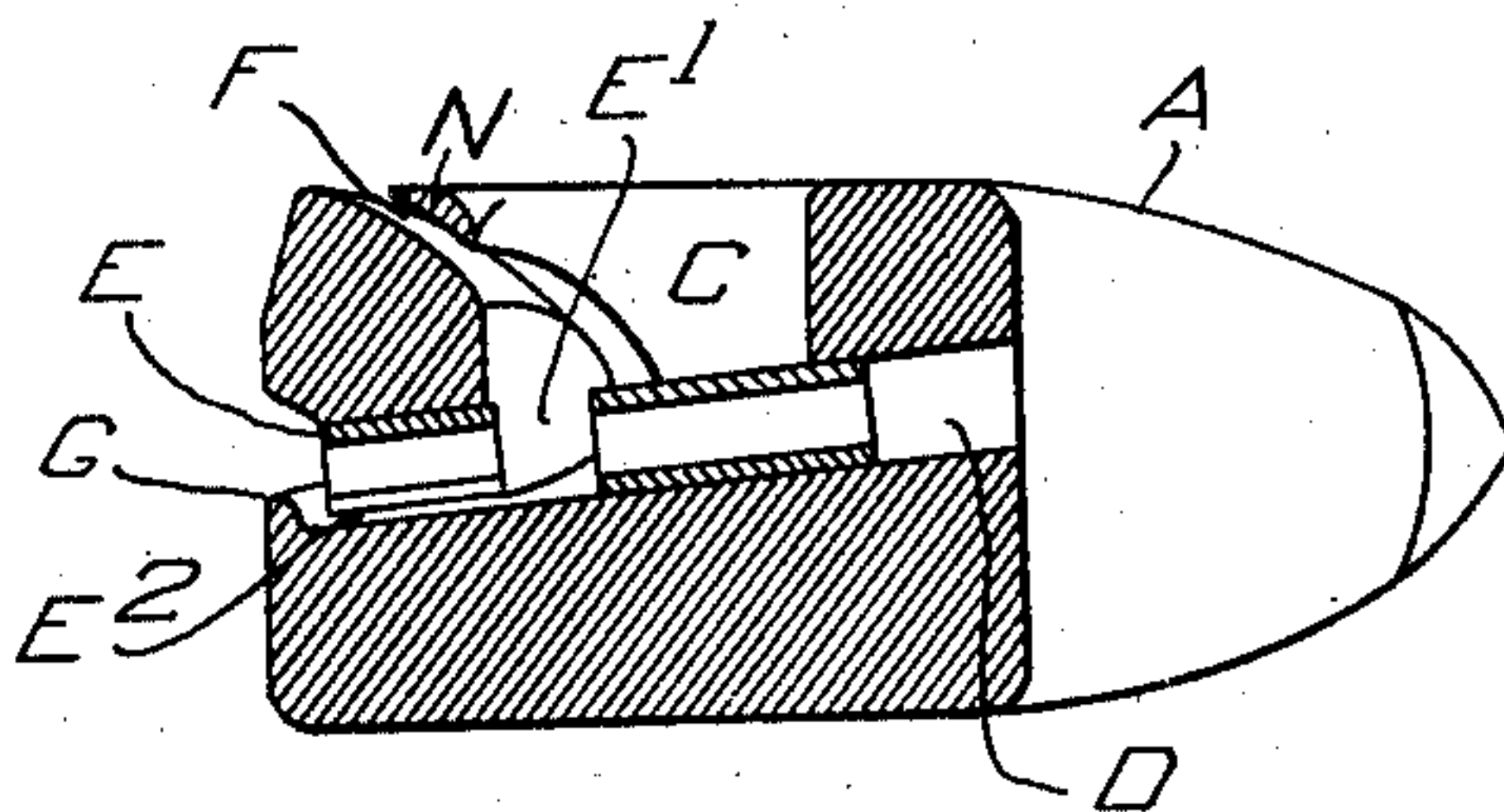


FIG. 4.

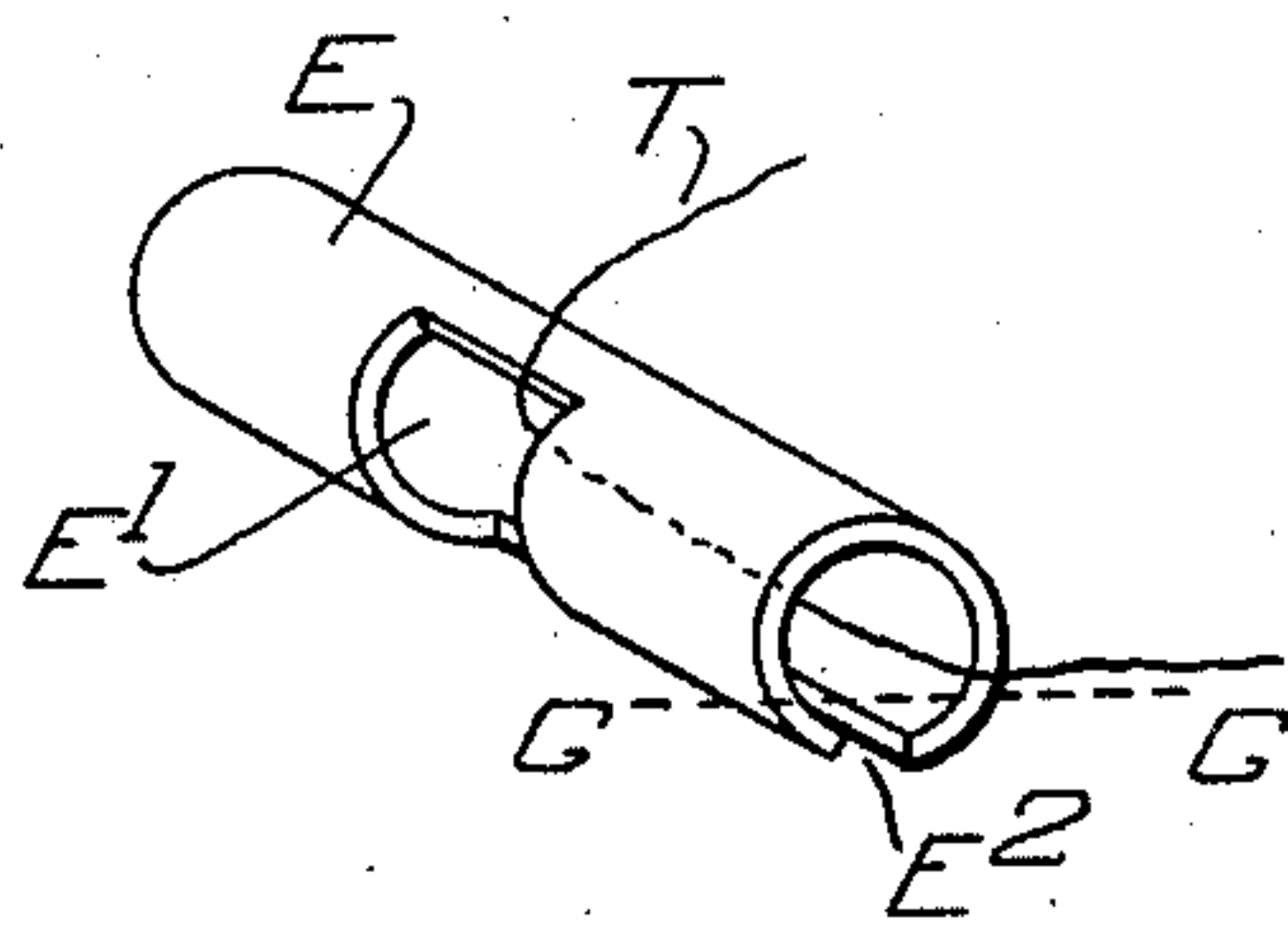


FIG. 5.

WITNESSES

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INVENTOR
JEAN BAPTISTE DAUDELIN
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UNITED STATES PATENT OFFICE.

JEAN BAPTISTE DAUDELIN, OF FALL RIVER, MASSACHUSETTS.

SELF-THREADING SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 756,592, dated April 5, 1904.

Application filed November 11, 1903. Serial No. 180,763. (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 Commonwealth of Massachusetts, have invented certain new and useful Improvements in Self-Threading Shuttles, of which the following is a specification.

This invention relates to shuttles, and particularly to that class known as "self-threading" shuttles, in which the thread is brought into the threading-eye through a passage so arranged as to prevent its subsequent escape therefrom.

It is the object of the present invention to provide a shuttle which will be light, well balanced, cheap, strong, and durable; and to this end I have dispensed with the cumbersome and expensive plates heretofore commonly in use and attain my purpose by a simple arrangement of the delivery-eye and threading-slots relative to the shuttle, which will be more fully described in the following specification.

In the drawings, in which like letters of reference indicate corresponding parts throughout, Figure 1 is a side view of my shuttle; Fig. 2, a plan view of the delivery end of my shuttle; Fig. 3, a section on the line 3 3, Fig. 2; Fig. 4, a diagonal section along the line 4 4, Fig. 2; and Fig. 5, a view of the threading-bushing removed.

A is a shuttle-body of any usual type, having a spindle-recess *a* and a threading-recess C.

D is a delivery-eye, in which is located a delivery-bushing E, having an opening E', connecting with a slot E².

F is a threading-slit leading from the upper face of the shuttle-body into the delivery-eye and connecting with the slit E² in the bushing.

The delivery-eye D pierces the shuttle-body transversely and is directed slightly downward, emerging at the side of the shuttle partially behind a shoulder G on the shuttle-body. The slit E² is on the lower side of the bushing and at its end lies behind the shoulder G, which is disposed across the lower side of the delivery-eye.

H is a cleared portion on the delivery end

of the shuttle, being sufficiently reduced to be out of contact with any part of the loom in its path. The threading-slit F is cut through this cleared portion, so that the edges of the slit are not exposed to wear, and consequently do not become roughened and require the constant sandpapering that is necessary to keep the ordinary shuttle in condition when the edges of its slits become worn and splintered.

In threading the shuttle the thread T is first drawn forward through the threading-recess C and into the slit F under the nose N formed thereby until the thread passes over the opposite nose N². Then by the rearward motion of the thread it is drawn under said last-named nose and through the opening E' and the slit E² into the delivery-eye. As it passes into the outer end of the delivery-eye the thread is bent to pass over the shoulder G, which lies across the end of the delivery-eye, so that when it at last clears itself of the slit and rises into the delivery-eye it is raised by this shoulder G above the plane of the slit by which it entered. The level of this shoulder G is clearly shown in the sections in Figs. 3 and 4 and is indicated by the dotted line G G in Fig. 5.

The direction of the delivery-eye and the location and nature of the threading-slits may of course be varied, and various other modifications may be made without departing from the spirit of my invention.

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

1. The combination with a shuttle having a delivery-eye, said eye having a portion of the shuttle-body remaining across its outer end, a bushing located in said delivery-eye, threading-passages permitting the thread to be drawn into the delivery-eye and bushing, said threading-passage in the bushing being behind that portion of the shuttle-body across the mouth of the eye to prevent the escape of the thread therefrom.

2. The combination in a shuttle having a delivery-eye, of a shoulder on the shuttle-body disposed across said eye to prevent the escape of the thread therefrom, a threading-passage permitting the thread to be drawn into the de-

livery-eye, said passage entering said eye below the plane of said shoulder.

3. The combination of a shuttle having a delivery-eye, said eye being partially closed
5 at its mouth by a portion of the shuttle-body and a threading-passage entering said threading-eye behind said closure.

4. The combination with a shuttle having a delivery-eye and a threading-passage leading
10 thereto said delivery-eye emerging partially behind a shoulder on the shuttle-body, and a bushing in said delivery-eye having a slit behind said shoulder to prevent the escape of the thread from the bushing.

15 5. The combination with a shuttle having a delivery-eye, a shoulder on the shuttle-body, said delivery-eye emerging partially behind said shoulder and a threading-passage below the plane of said shoulder permitting the
20 thread to be drawn into the delivery-eye.

6. The combination of a shuttle having a

delivery-eye, disposed at an angle to the surface of the shuttle, said eye being only partially cut through at said surface to leave a
25 shoulder on the shuttle-body and a threading-passage entering said threading-eye behind said shoulder.

7. The combination with a shuttle-body having a delivery-eye of a cleared portion whose surface is lower than that of the surrounding
30 shuttle-body and protected thereby from contact, a threading-passage permitting the thread to be drawn into the delivery-eye, said threading-passage intersecting said shuttle at said cleared surface.

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

JEAN BAPTISTE DAUDELIN.

Witnesses:

SAMUEL J. KELLY,
ADOLPHE BLAIR.