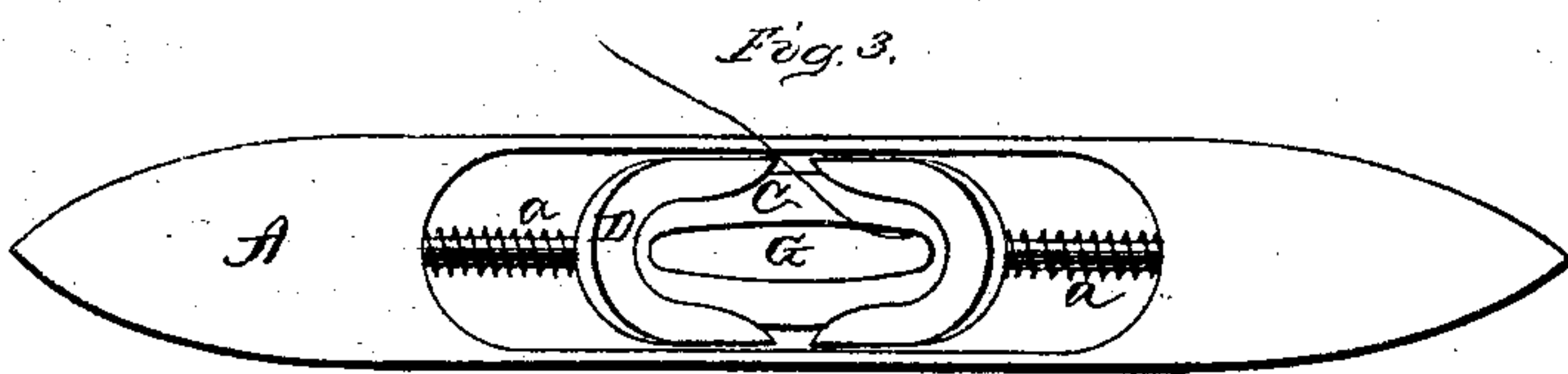
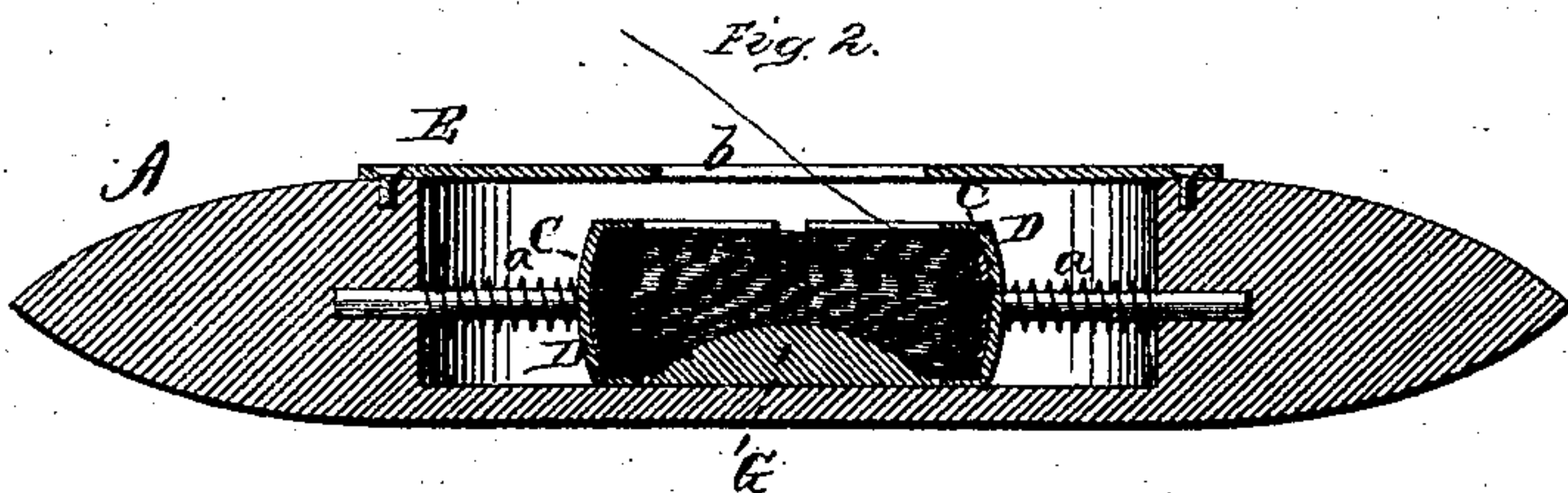
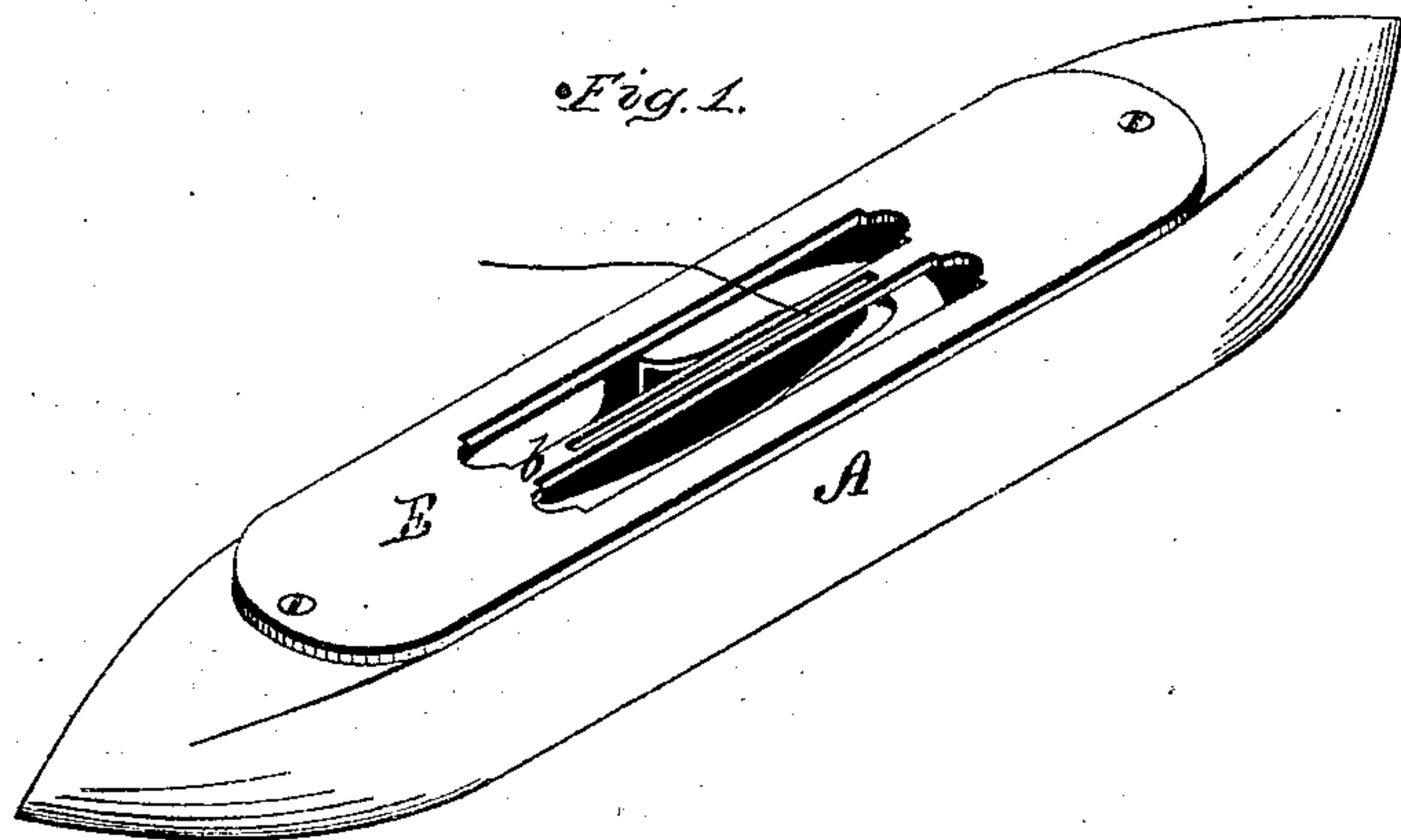


Q. A. WASHBURN.

Loom-Shuttles.

No. 152,443.

Patented June 23, 1874.



Witnesses

John A. Ellis
Wm. H. Ellis

Inventor
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UNITED STATES PATENT OFFICE.

QUINCY ADAMS WASHBURN, OF CLINTON, MASSACHUSETTS, ASSIGNOR TO
CALEB K. SAWYER, OF SAME PLACE.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **152,443**, dated June 23, 1874; application filed
December 22, 1873.

To all whom it may concern:

Be it known that I, Q. ADAMS WASHBURN, of Clinton, in the county of Worcester, and State of Massachusetts, have invented certain new and useful improvements in Shuttles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates particularly to shuttles for weaving wire-cloth; and it consists in the formation of the skein of wire, with the interior arrangement of the shuttle, so as to weave from the inside of the skein, all as hereinafter more fully set forth—

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, Fig. 2 a longitudinal section, and Fig. 3 a plan view, of my shuttle, the top plate being removed.

A represents the shuttle proper, constructed in the usual manner, and of the usual material or materials, as may be necessary. B represents the skein of wire, in which the wire is wound in oval form and diagonally or obliquely, and in such a manner that it will be unwound from the inside of the skein, thus weaving from the inside instead of as usual from the outside of the skein. The wire-skein B is inclosed within an elastic band, C, and when inserted in the shuttle a metal socket or holder, D, is placed over each end of the skein. The object of the elastic band

C is to hold the wire-skein in proper shape while being handled previous to being placed in the shuttle, and for more convenient insertion in the shuttle. These holders are pressed inward by means of spiral or other springs, *a a*, for the purpose of expanding the skein from the center firmly against the walls of the shuttle while the wire is being woven out, for convenience in inserting the cop. Screws may be used in place of springs for this purpose. Within the skein B, on the bottom of the shuttle, is placed a pyramidal, or other suitably shaped piece, G, around which the wire unwinds while being woven off, to prevent kinking and that it may run off readily. E is the top plate of the shuttle, with guide *b*, through which the wire will pass in weaving.

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

1. In a shuttle for weaving wire-cloth, the holders D, in combination with the springs *a a* and skein B, substantially as and for the purpose herein specified.

2. The piece G, placed within the wire-skein in the shuttle, for the purposes herein set forth.

3. The combination herein set forth of elastic band C, sockets D D, and spring A, all arranged as described.

In testimony that I claim the foregoing I affix my signature in the presence of two witnesses.

QUINCY ADAMS WASHBURN.

Witnesses:

JOHN T. DAME,
C. K. SAWYER.