

(No Model.)

L. STURGES.
SHUTTLE FOR LOOMS.

No. 604,804.

Patented May 31, 1898.

FIG. 1

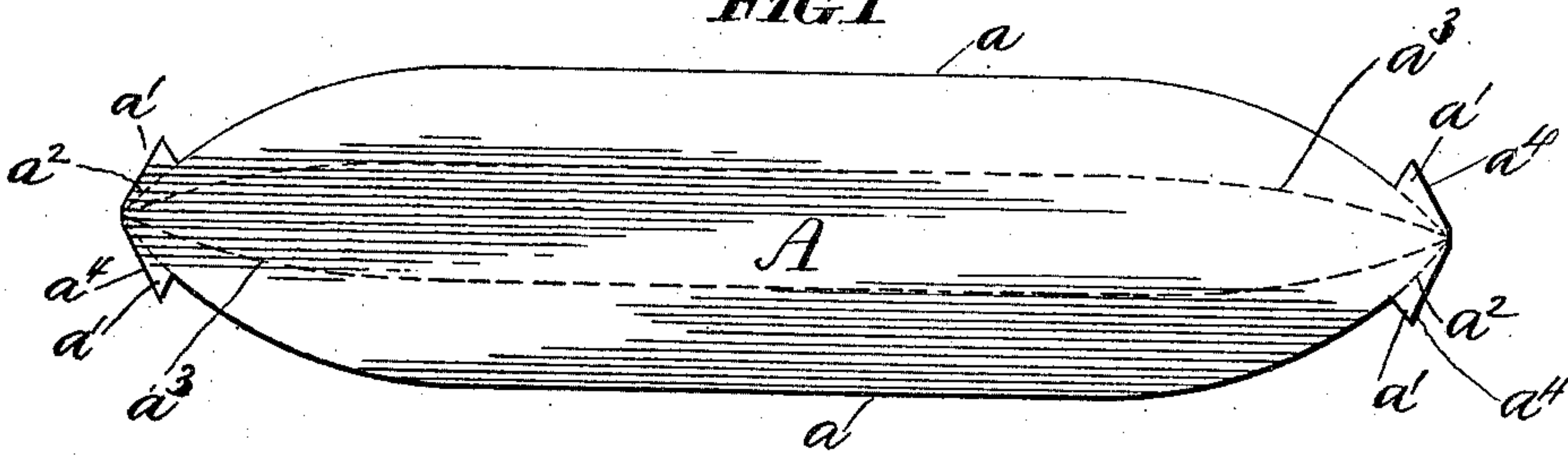


FIG. 2

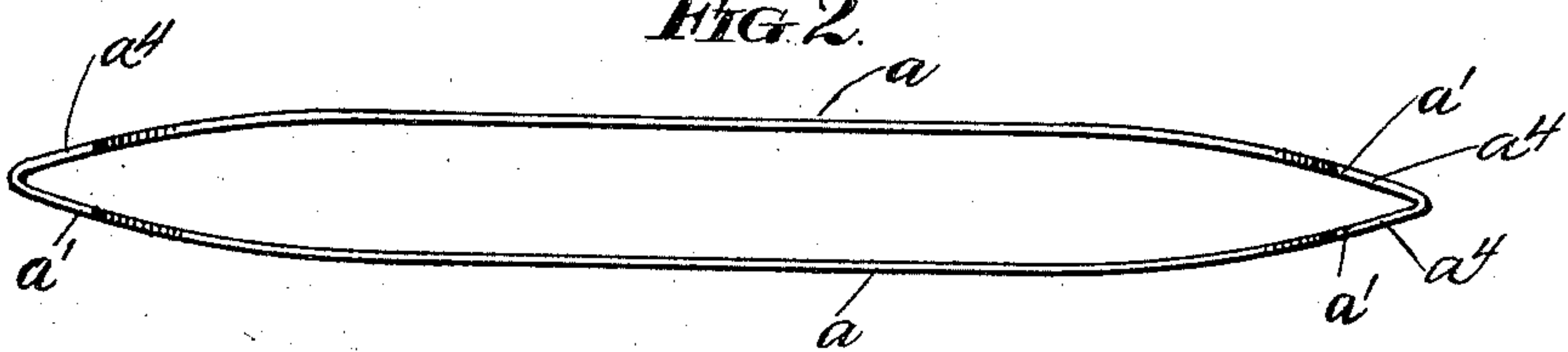


FIG. 3

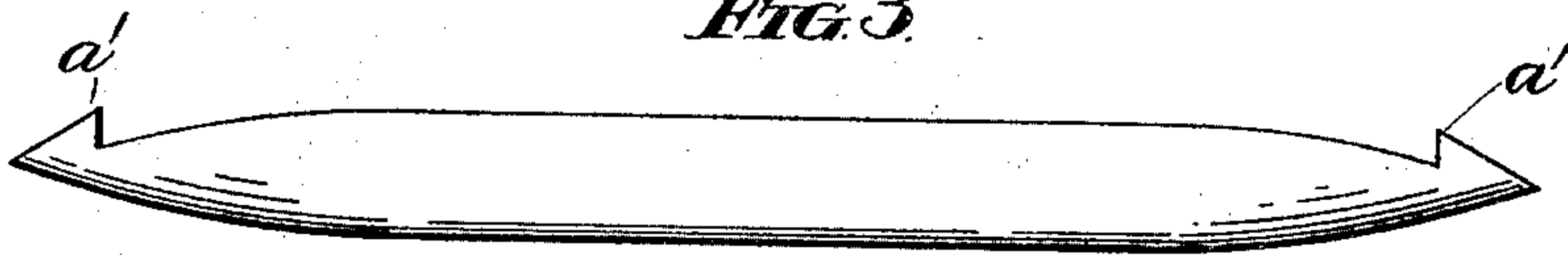


FIG. 4

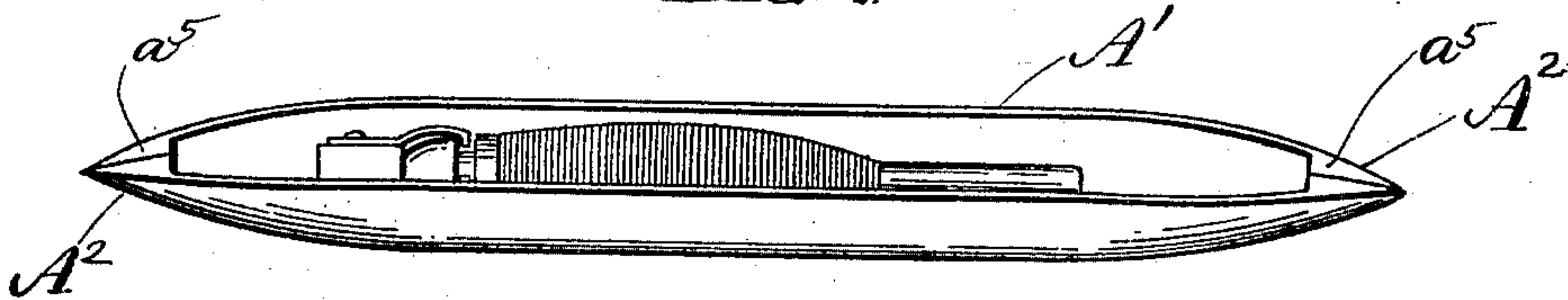


FIG. 5

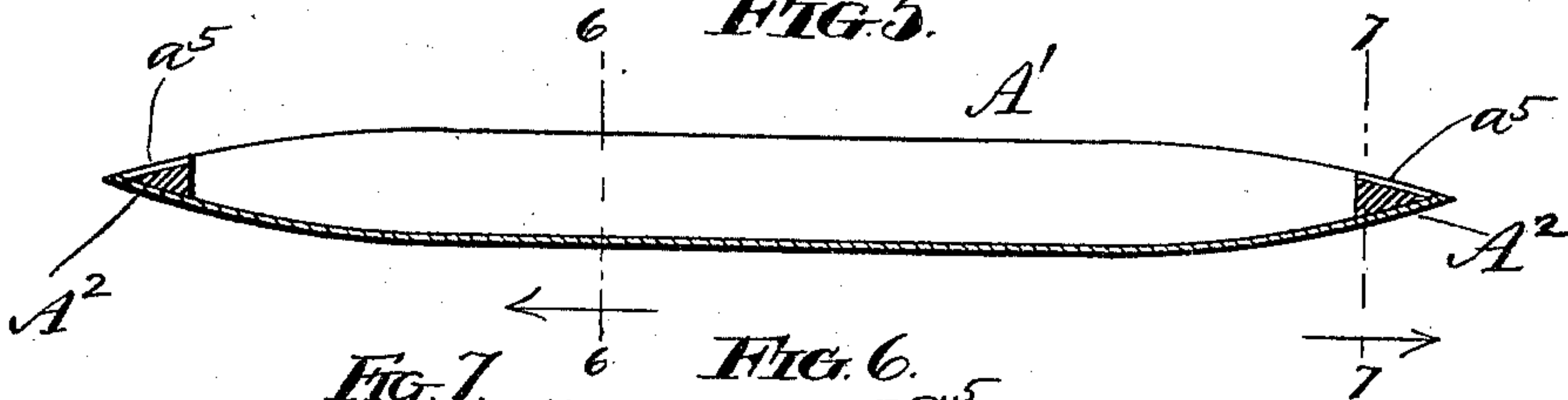
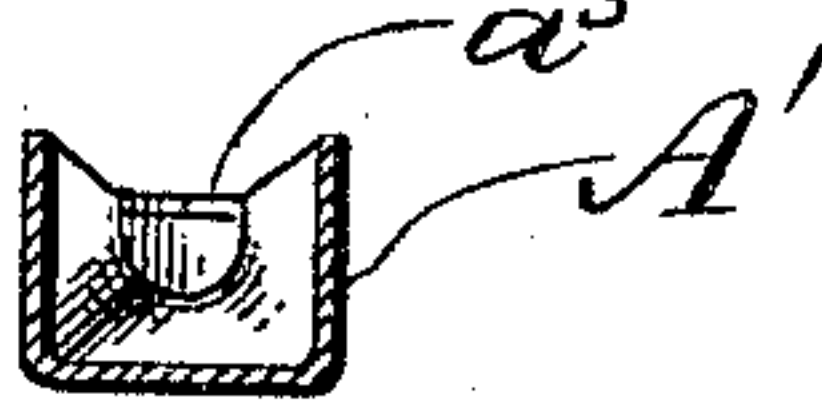


FIG. 7



FIG. 6



Witnesses
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UNITED STATES PATENT OFFICE.

LEE STURGES, OF CHICAGO, ILLINOIS.

SHUTTLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 604,804, dated May 31, 1898.

Application filed June 21, 1897. Serial No. 641,585. (No model.)

To all whom it may concern:

Be it known that I, LEE STURGES, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Shuttles for Looms, of which the following is a specification.

This invention relates to improvements in sheet-metal shuttles for looms, and has for its object to provide a practically seamless construction in such articles, so as to materially
10 reduce the cost of manufacture and at the same time produce a more perfect and durable shuttle.

The invention consists in the matters hereinafter set forth, and more particularly pointed
15 out in the appended claims, and will be readily understood, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the sheet-metal blank from which the shuttle is formed. Fig.
20 2 is a plan view of the shuttle partially formed. Fig. 3 is a side elevation of the same. Fig. 4 is a perspective view of the completed shuttle. Fig. 5 is a vertical longitudinal sectional
25 view of the shuttle; and Figs. 6 and 7 are cross-sectional views taken on lines 6 6 and 7 7, respectively, of Fig. 5.

Referring to said drawings, the blank A shown is of sheet metal (commonly sheet-
30 steel) of suitable thickness and in its general shape is approximately elliptical, with flattened or straight side margins, as indicated at a . At each end the blank is provided
35 with a pair of integral oppositely-disposed projections or lugs a' a' , which lugs, when considered as being those portions of the blank lying entirely outside of the lines of the ellipse, as indicated in dotted lines at a^2 , are
40 substantially triangular in form, with their acute angles meeting at the extreme points of the blank.

The blank, shaped as described, is bent or "struck up," by means of dies, into a seamless three-sided shell or shuttle A', substantially rectangular in cross-section throughout
45 its main length and having tapering pointed ends A^2 , which in their cross-sectional form merge from the rectangular form of the main portion of the shuttle gradually into a circular or nearly circular cross-sectional form at
50 the points of the shuttle, the lines upon which the blank is bent or folded being substantially as indicated in dotted lines at a^3 , Fig. 1, although it will of course be understood that

the dies will perform a certain amount of drawing in forming up the shell. The shell having
55 been thus formed with its entire upper side open, as indicated in Fig. 2, the lugs a' a' are next bent or formed over toward each other, so as to bring their outer margins a^4 together
60 and form a cover or deck portion a^5 , Figs. 4 and 5, over the extreme ends of the cavity of the shell. The hollow points thus formed are subsequently filled with metal, preferably
65 by pouring molten brass or other suitable metal therein and allowing it to harden, thereby making the points of the shuttle practically as strong and durable as though formed
from a solid piece of metal.

The construction just described is superior
70 to all previous constructions in sheet-metal shuttles in avoiding all seams in the body portion or shell of the shuttle and in thus not only effecting a material saving in the labor and cost of manufacture, but resulting in a
75 stronger and more durable shuttle for a given weight of material.

The particular construction of the devices by means of which the bobbin is held within
the shuttle is not essential, inasmuch as said
80 devices form no part of the present invention and may be of any suitable or preferred construction.

The devices illustrated herein are of a common and well-understood construction and
85 need not therefore be more particularly described.

I claim as my invention—

1. A shuttle constructed of sheet metal in the form of a seamless three-sided shell having tapered points and integral deck portions
90 at said points closing the ends of the otherwise open side.

2. A shuttle constructed of sheet metal in the form of a seamless three-sided shell having tapered points, provided with integral
95 deck portions closing the ends of the otherwise open side, and provided with metal filling occupying the cavities within the points beneath the deck portions.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two subscribing witnesses, this 19th
day of June, A. D. 1897.

LEE STURGES.

Witnesses:

HOPE REED CODY,
ALBERT H. GRAVES.