

H. PORT & E. SURGI.  
BOOTS AND SHOES.

No. 30,419.

Patented Oct. 16, 1860.

Fig. 1.

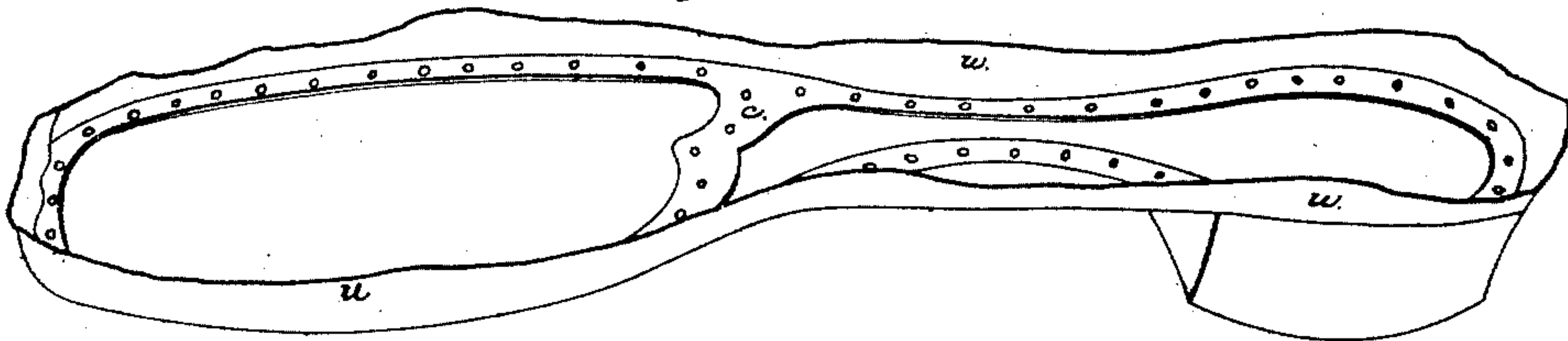


Fig. 2.

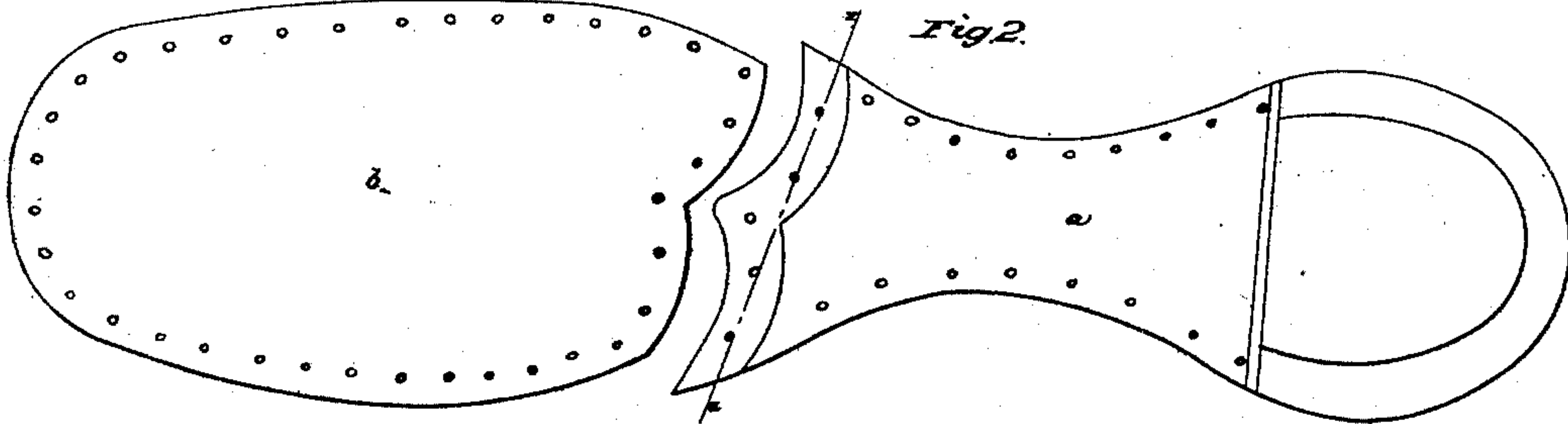


Fig. 4.

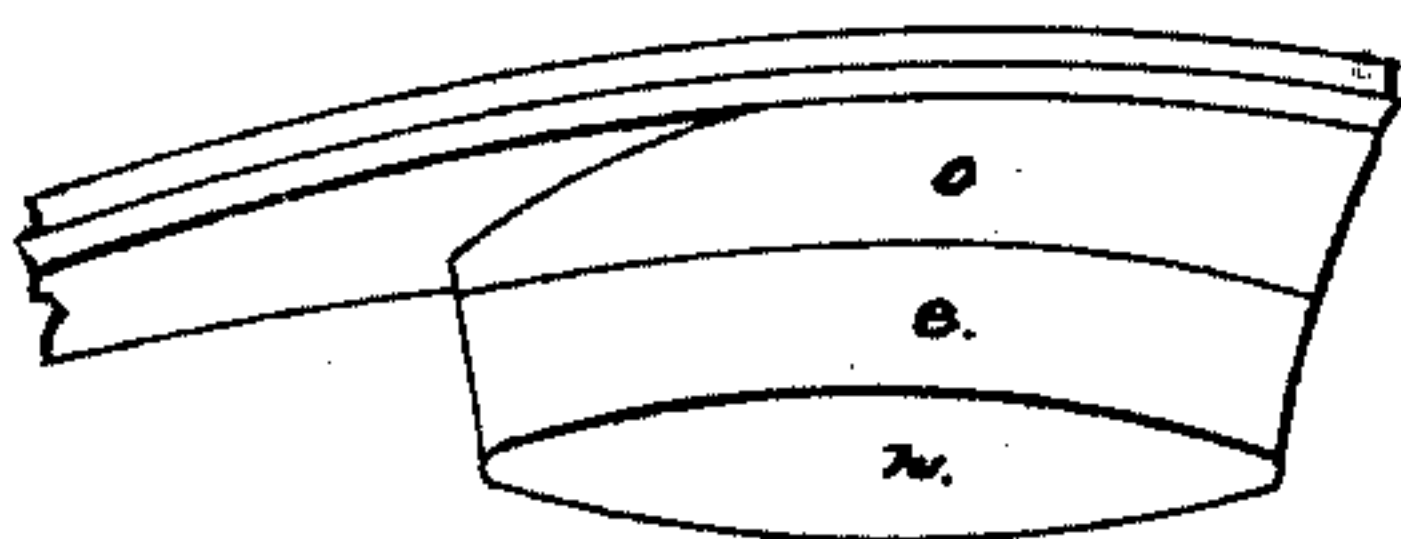


Fig. 5.

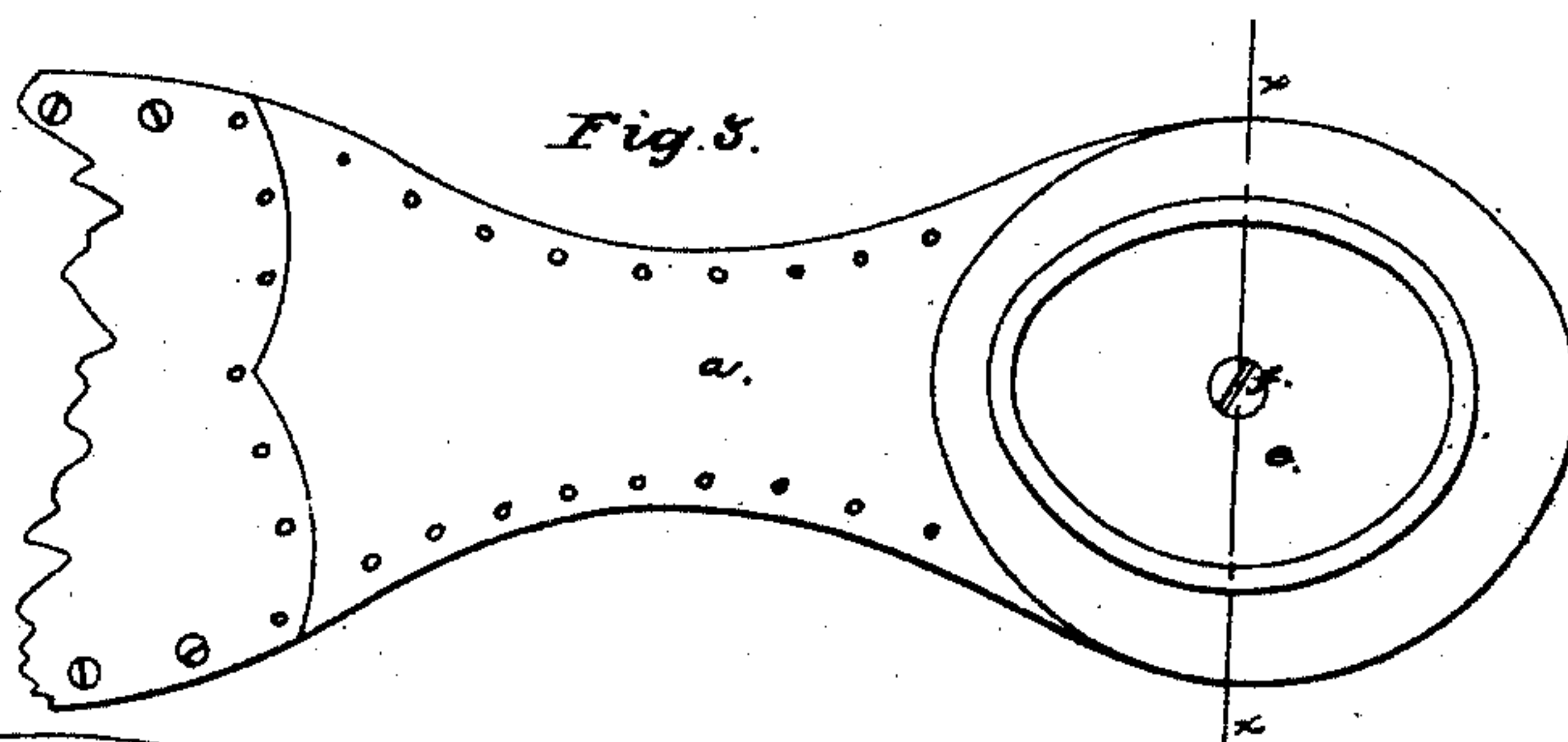
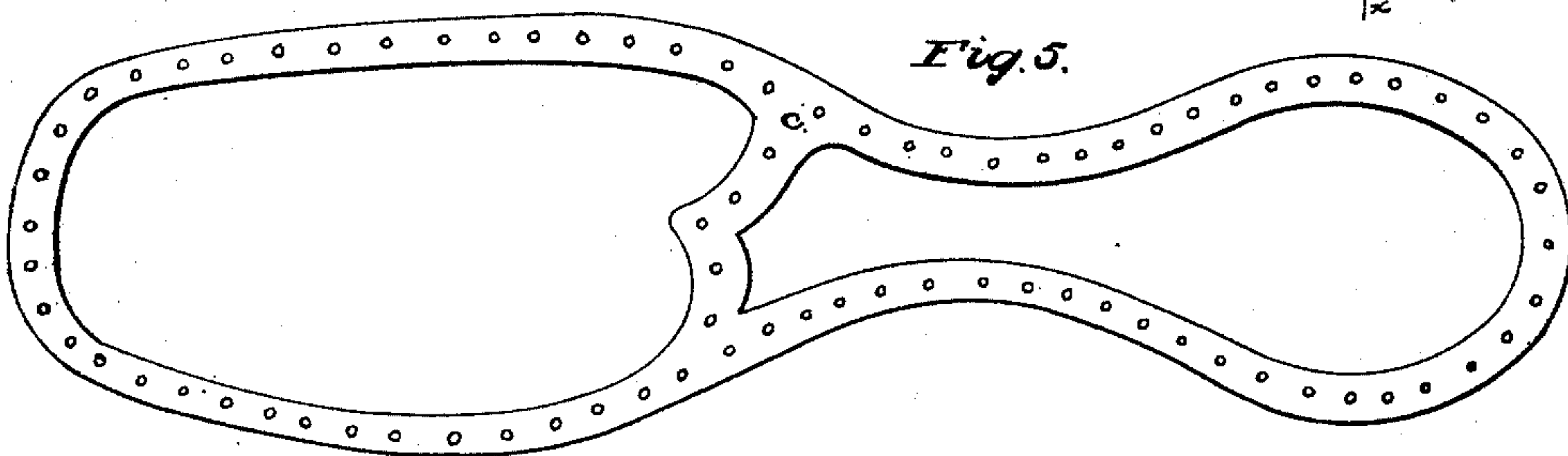


Fig. 5.



Witnesses.

James Armstrong  
Louis Thibault

Inventors.

Henry Port.  
E. Surgi.

H. PORT & E. SURGI.  
BOOTS AND SHOES.

No. 30,419.

Patented Oct. 16, 1860.

Fig. 8.

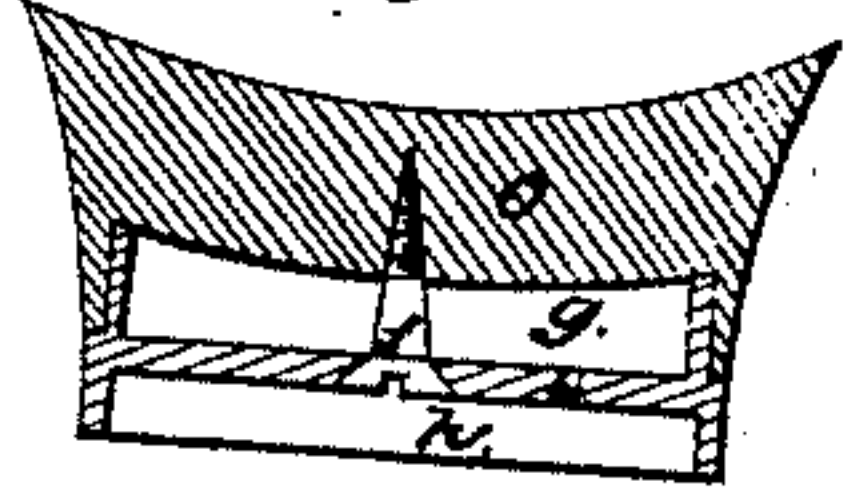


Fig. 7.

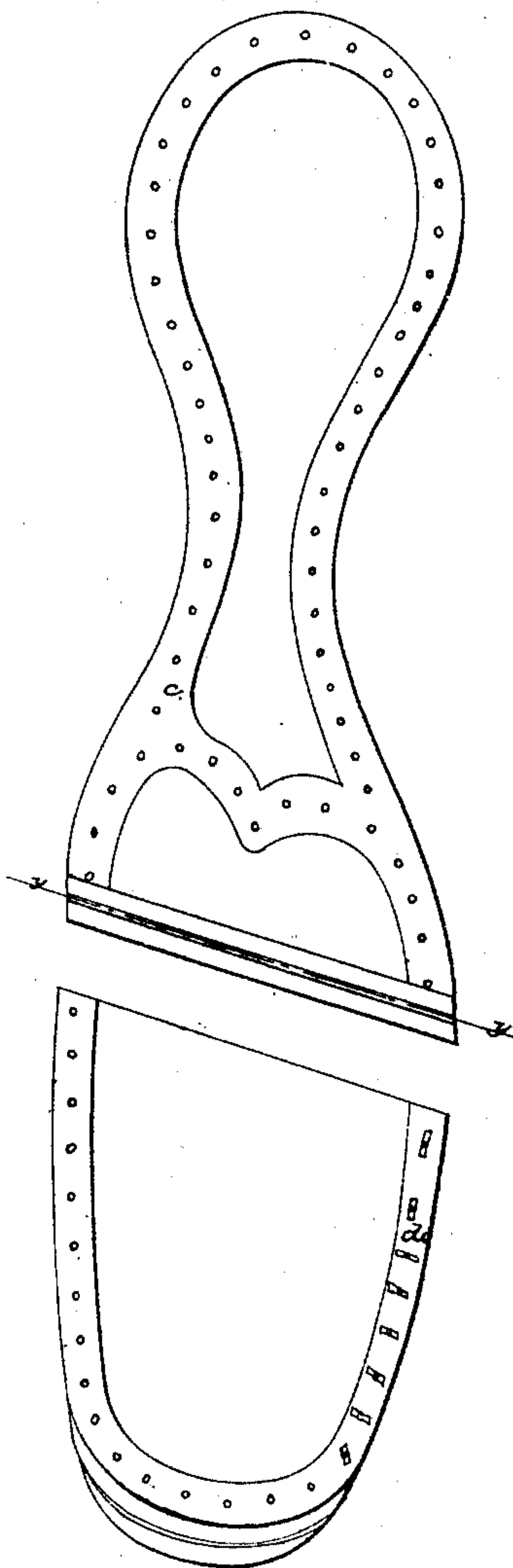
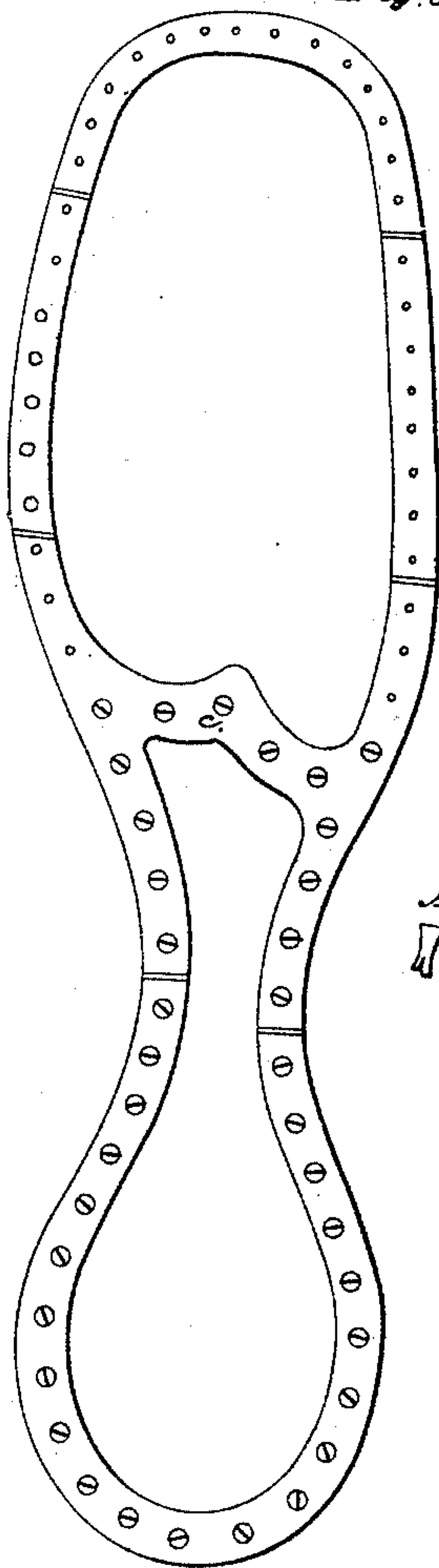


Fig. 6.



Witnesses:

and Amos Thompson  
Louis Henriot

Inventors.

Henry Port  
E. Surgi



# UNITED STATES PATENT OFFICE.

HENRY PORT AND EUGENE SURGI, OF NEW ORLEANS, LOUISIANA.

## BOOT OR SHOE.

Specification of Letters Patent No. 30,419, dated October 16, 1860.

*To all whom it may concern:*

Be it known that we, HENRY PORT and EUGENE SURGI, both of the city of New Orleans, in the State of Louisiana, have invented certain new and useful Improvements in the Manufacture of Boots and Shoes; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, represents a perspective view of the inside of the sole of a boot, with a portion of the upper leather; Fig. 2, a bottom view of the same, divided into two parts; Fig. 3, a bottom view of the same with a heel and shank of different form and construction; Fig. 4, a perspective view of the heel and part of the shank shown in Fig. 3; Fig. 5, a plan view of a metallic skeleton plate or frame; Fig. 6, a plan view of a similar plate but divided into sections; Fig. 7, a perspective view of the inside of a heavy sole, divided transversely into two parts for the purpose of showing the edge of a metallic plate S; Fig. 8, a transverse section in the line X X of the heel shown in Figs. 3 and 4 and Fig. A a form of rivet.

The letters of reference indicate the same parts in the different figures.

To enable others skilled in the art to manufacture boots and shoes according to our improvements we subjoin the following description.

The upper part of the boot or shoe is made and prepared in the usual manner but is secured to the sole by means of tapering metallic rivets, passing through holes in frames of metal C, and through the uppers and soles. The holes in the frames and soles are punched with suitable machinery so that they shall correspond with each other. A last of metal or faced with metal is used, against which the rivets are driven, and firmly clenched. A firm union of the uppers to the soles is thus accomplished superior to that formed by the use of pegs or by stitches. The sole may be worn away to the plate before a separation can take place.

The plate shown in Fig. 6 is divided into sections for the purpose of increasing its flexibility when heavy soles are used. The cross bar in the frame C is for the purpose of uniting the shank with the fore part of the sole by means of rivets or screws passing

through holes in the bar and through the lap of the chamfered edges of the shank and sole.

A is the form of rivet we prefer in heavy work.

It is split at its entering end, and forks and spreads as it is driven against a hard substance forming a secure clench as shown at *d*, Fig. 7.

The shank and heel in Figs. 1 and 2, are made of vulcanized india rubber in one piece without joints. The great facility with which this material can be molded into any desired form reduces the expense materially as compared with leather, while its elasticity, durability and waterproof qualities render the use of it for this purpose an important improvement in the manufacture of boots and shoes.

The shank and upper portion of the heel *o*, Figs. 3, 4 and 8, are made in one piece of zinc or other metal. Both portions of the heel are elliptical in their form, the lower part connected to the upper part by a screw *f*, through its center. An elliptical flange is formed upon the upper side of the lower portion which fits into a corresponding cavity *g* in the upper one *o*. This cavity is left for the purpose of lightness and of economy of material its form prevents the lower piece from changing its position unless the screw is slackened or removed for the purpose of reversing the lower part, when worn on one side, as is frequently the case. Changing the worn side of the heel to the opposite side has a tendency to correct the fault in the tread of the wearer, which causes the heel to wear faster on one side than the other.

In heavy soles a thin plate S, Fig. 7, of metal of the same size as the sole may be placed between two layers of leather and rivets or small screws may be used passing through the soles plate S, upper leather and frame C to confine the whole together.

What we claim as our invention and desire to secure by Letters Patent is—

The metallic skeleton plate or frame C, when used in combination with the sole and upper leather in the manner and for the purpose specified.

HENRY PORT.  
E. SURGI.

Witnesses:

FRANCIS ARMSTRONG,  
LOUIS HENRIOT.