

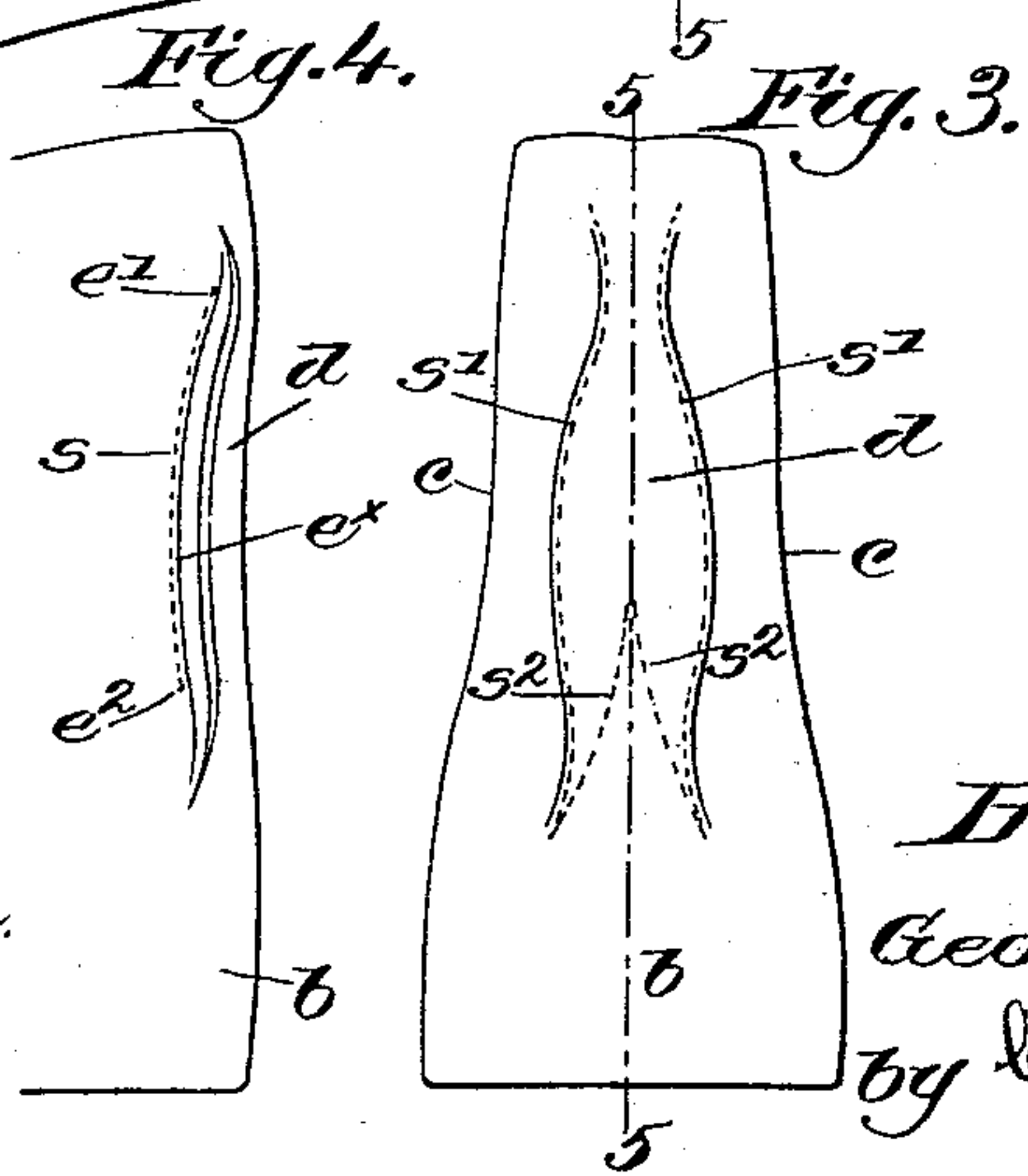
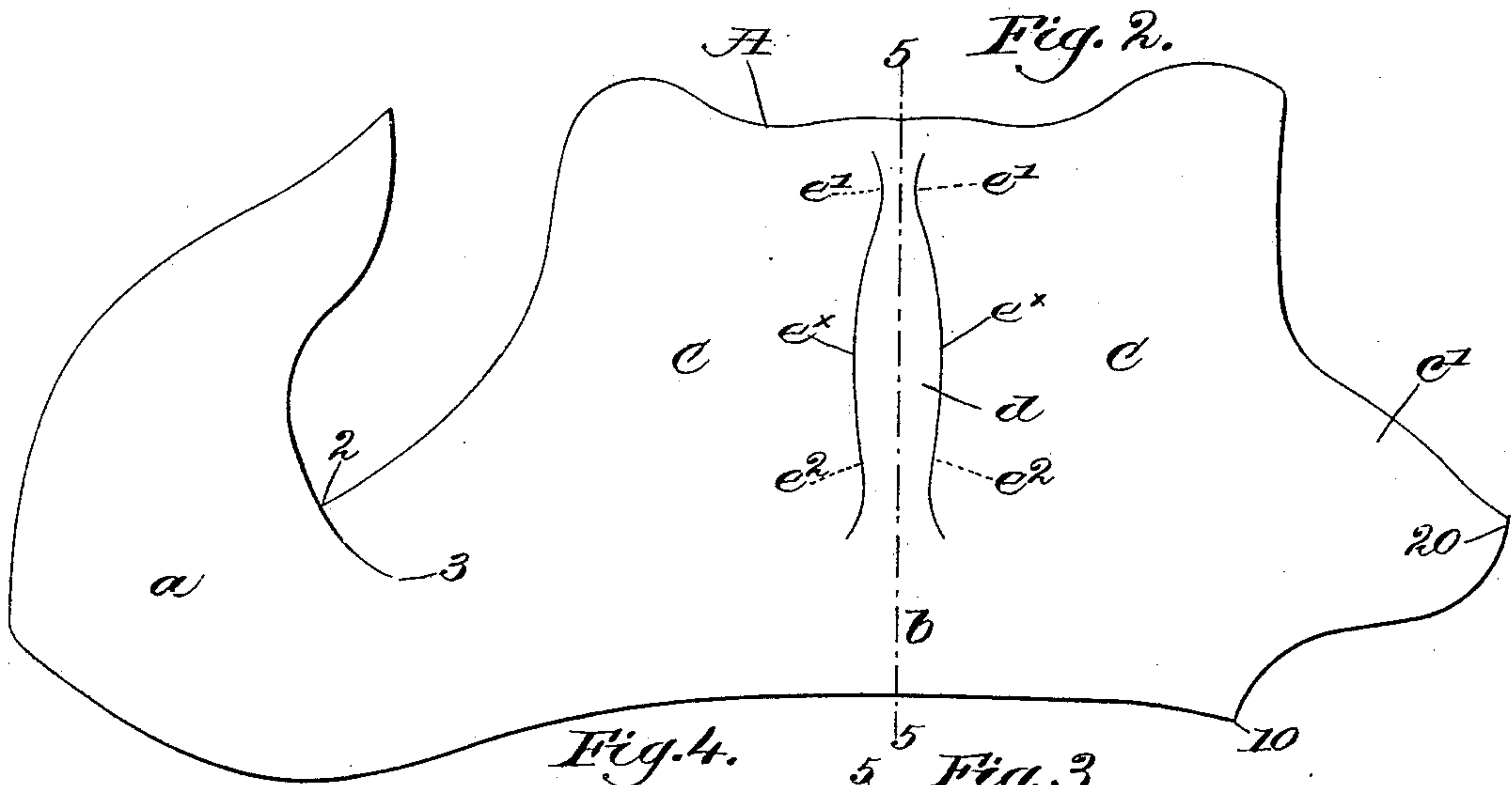
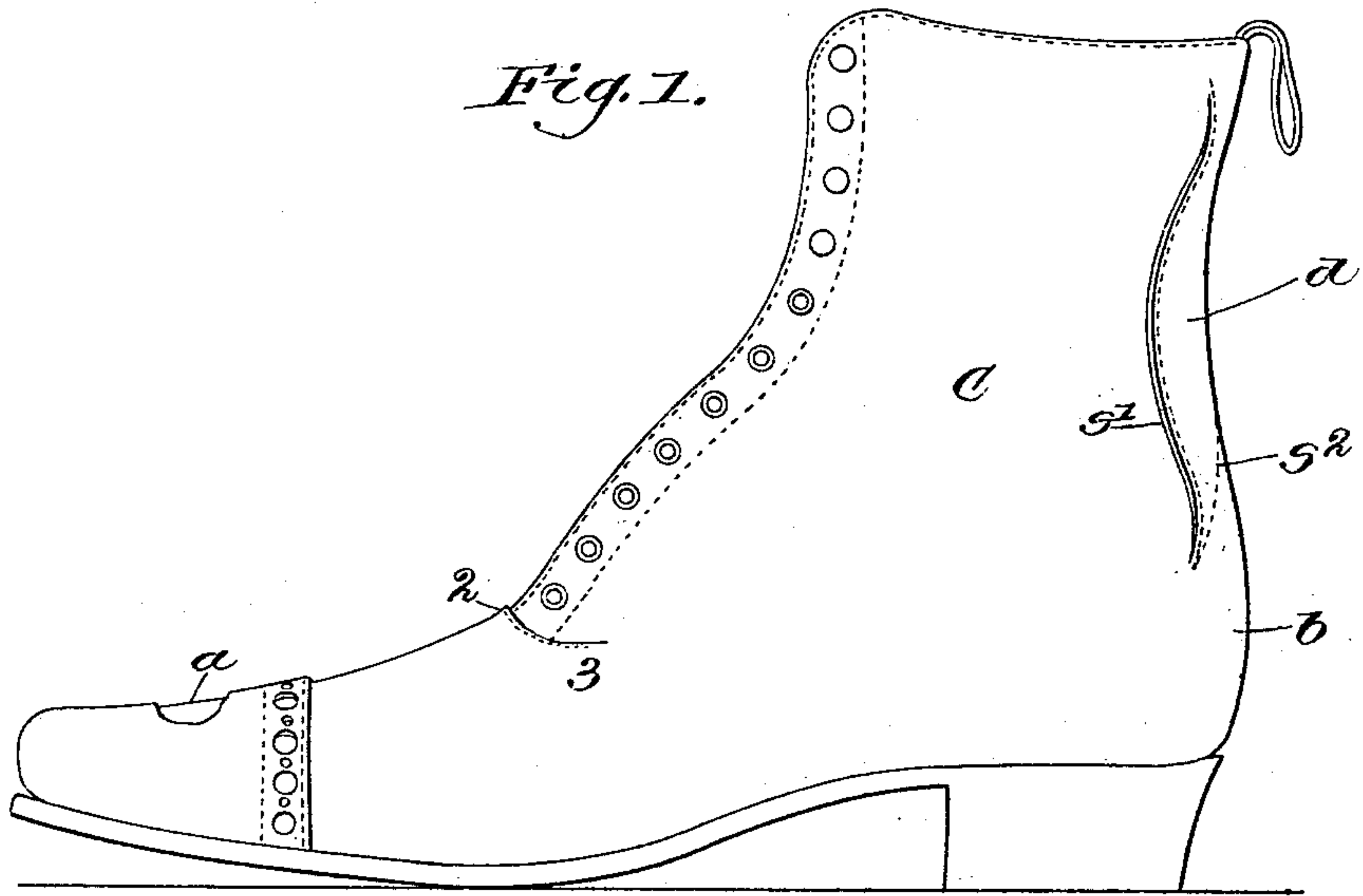
No. 620,278.

Patented Feb. 28, 1899.

G. W. CHASE.  
SHOE.

(Application filed Feb. 24, 1896.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

GEORGE W. CHASE, OF NORTH ADAMS, MASSACHUSETTS.

## SHOE.

SPECIFICATION forming part of Letters Patent No. 620,278, dated February 28, 1899.

Application filed February 24, 1896. Serial No. 580,401. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. CHASE, of North Adams, county of Berkshire, State of Massachusetts, have invented an Improvement in Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates particularly to that class of shoes wherein the upper is made without a heel-seam, whether the entire upper-blank is made as a unitary piece or not; and it has for its object the production of a shoe without a heel-seam formed from a blank cut with the minimum of waste and labor and obviating the removal of portions of material from the upper to properly shape the heel-line of the ankle portion when completed, the said heel-line being reinforced by an integral stay portion of the upper.

In accordance therewith my invention consists in a shoe the construction of which will be hereinafter fully described in the specification, and particularly pointed out in the claims.

Figure 1 is a side elevation of a shoe embodying my invention; Fig. 2, a view of the blank forming the upper. Fig. 3 is a rear end elevation of the upper portion of the shoe shown in Fig. 1; and Fig. 4 is a partial side elevation of the heel-and-ankle portion of the upper, showing one step of the construction.

The upper-blank A, as herein shown, comprises, as best shown in Fig. 2, the toe portion *a*, back *b*, and ankle or instep portions *c*, cut in a single piece from the skin or leather. The curved line 1 2 of the toe portion *a* is continued into the blank to the point 3, and the line 10 20 of the portion *c*, Fig. 2, is stitched afterward along the line 1 2, so that the only seam in the upper comes at the side of the fore part or vamp of the shoe.

The blank A is folded upon the broken line 5 5, Figs. 2 and 3, and at each side of this line I form symmetrically-disposed slits  $e^x e^x$  to leave an intermediate stay-strip *d* of material integral at top and bottom with the blank or upper.

As best shown in Figs. 2 and 3, the slits, or, at any rate, the outer walls or edges thereof, are made of curved or such other irregular

shape as will give the desired crimped or molded formation to the sides of the upper when the said edges are brought together inside or behind the stay-strip *d* and stitched one edge to the other along a single vertical line, as indicated at *s* between the points  $e'$  and  $e^2$  in Fig. 4.

The curves of the slits, or the outer walls or boundaries thereof, are such that the adjacent ends of the two slits are made divergent or to spread outwardly, as best shown in Figs. 2 and 3, the divergence at the lower ends of the stay-strip *e* being preferably wider or more open than at the top thereof. The reason for this is that when the strip is subsequently laid and stitched over and upon and to conceal the seam *s* there will be no sharp pucker or point where the ends of the stay-strip blend into the integral material of the shoe upper or blank, which would be the case if the ends of the slits or cuts were directed outwardly or made divergent.

By reference particularly to Fig. 3 it will be seen that where the stay-strip joins the integral material of the upper at opposite ends of the stay the lapping at the ends follows approximately the direction of the divergent ends of the slits or cuts, so that the stay or overlapping portion of the upper is blended into the body portion thereof. The blank is then opened out, and the stay-strip *d* is spread over the seam thus formed, and by stitching  $s'$ , Figs. 1 and 3, the edges of the strip are secured to the upper at each side of the seam *s*, and auxiliary converging lines of stitching  $s^2$  may also be put in, as shown clearly in Fig. 3.

The curvature of the slits  $e^x$  is such that when the ankle portions *c* are united along line *s* and the edges of the strip *d* secured in place the proper curvature will be given to the back or heel line of the upper. The completed shoe thus has a continuous heel portion *b* without seam or other interruption and the strip *d* has the appearance of and acts as a stay-strip for the ankle part of the upper, reinforcing the same and presenting a strong wearing-surface.

No material is necessarily removed from the back portion of the upper when the slits  $e^x$  are made, and the closed shaping-seam *s* is completely concealed and protected.



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

1. A unitary shoe-upper comprising a toe  
5 portion, continuous heel portion and ankle or instep portions, the back of the upper above the heel portion having two symmetrically-located, upright slits therein outwardly curved at their middle portions and inwardly curved  
10 between such middle portions and their out-turned upper and lower ends, to form a strip between them having its edges correspondingly curved and integral with the upper at top and bottom, substantially as described.
- 15 2. A shoe-upper provided in the vicinity of the heel with two vertical cuts having irregular edges, forming a heel-stay integrally attached at its opposite ends to said upper, the irregular edges of said upper at said cuts be-  
20 ing joined or seamed together beneath the stay in a single straight line to crimp or mold the shoe-upper to fit the foot, and the stay thereafter stitched down upon and to conceal the said single line joint or seam, the adja-  
25 cent ends of the said cuts being directed outwardly or made divergent to smoothly blend the crimped and stayed portions of the upper

into the material of the said upper at the ends of the stay, and thereby avoid a sharp point or pucker at said stay ends, substantially as 30 described.

3. A shoe made from a blank or pattern provided at the back of the upper with incisions or slits having a reinforcing stay-strip between them, said stay-strip being integral 35 with the upper adjacent the counter-line, the slitted upper being sewed together at the rear beneath said stay-strip to form a seam, said stay-strip extending over the sewed seam and being stitched to the upper at the opposite 40 sides of the said seam by rows of stitches close to the edges of said stay-strip, said rows of stitches extending from adjacent the counter-line uninterruptedly throughout the entire length of the stay-strip on each side 45 thereof, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. CHASE.

Witnesses:

JOHN C. EDWARDS,  
AUGUSTA E. DEAN.