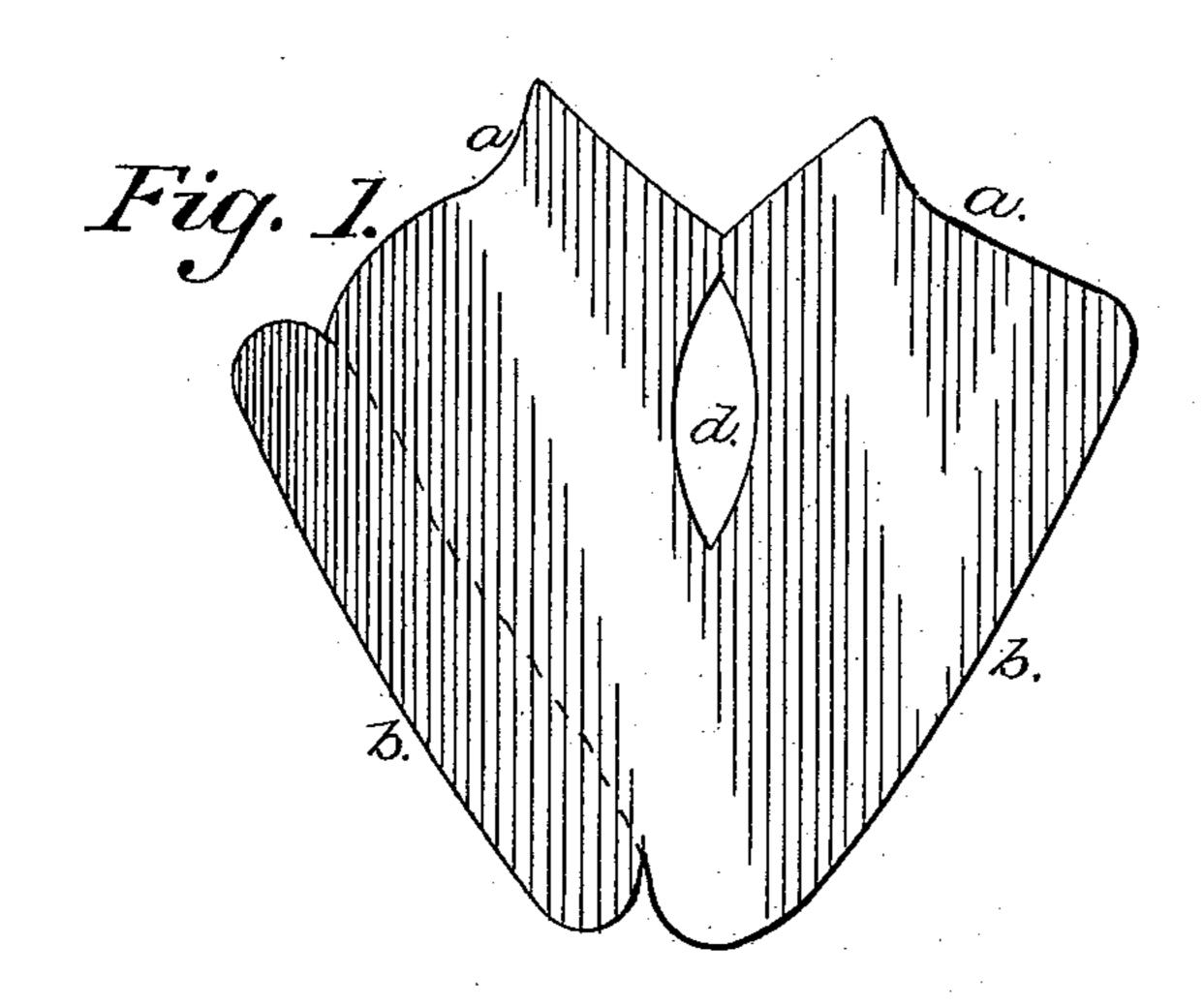
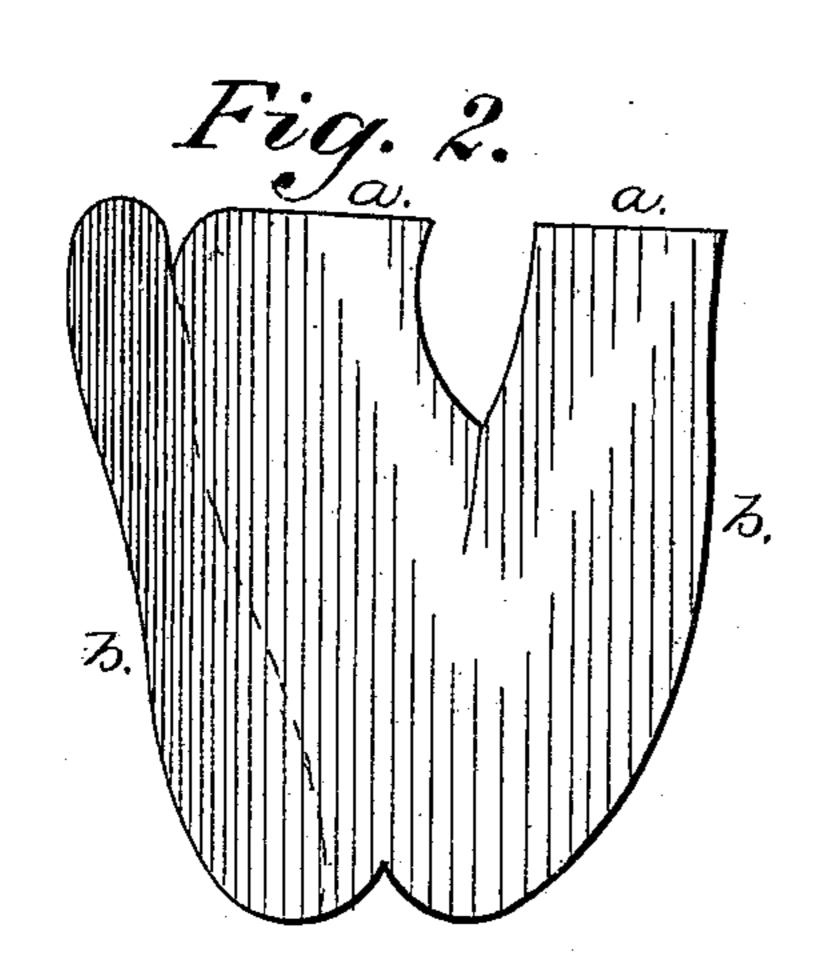
A. GRAFF.

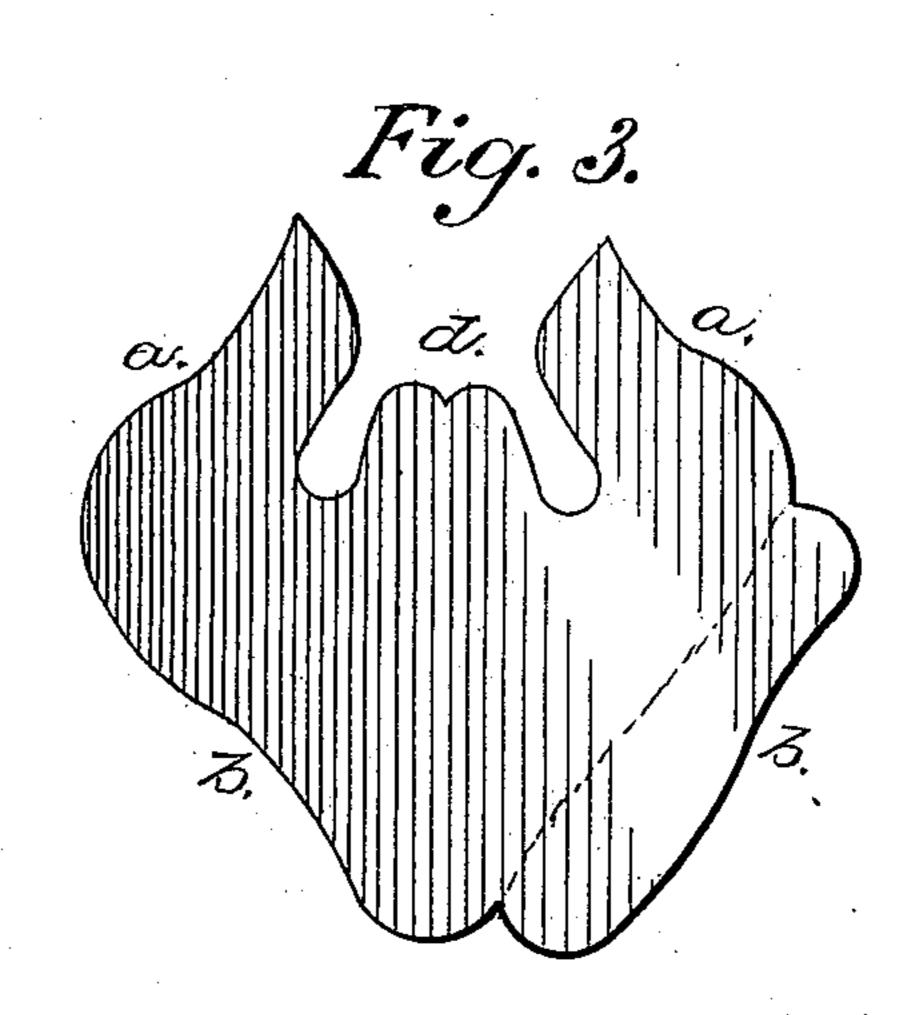
SEAMLESS SHOE.

No. 336,913.

Patented Mar. 2, 1886.







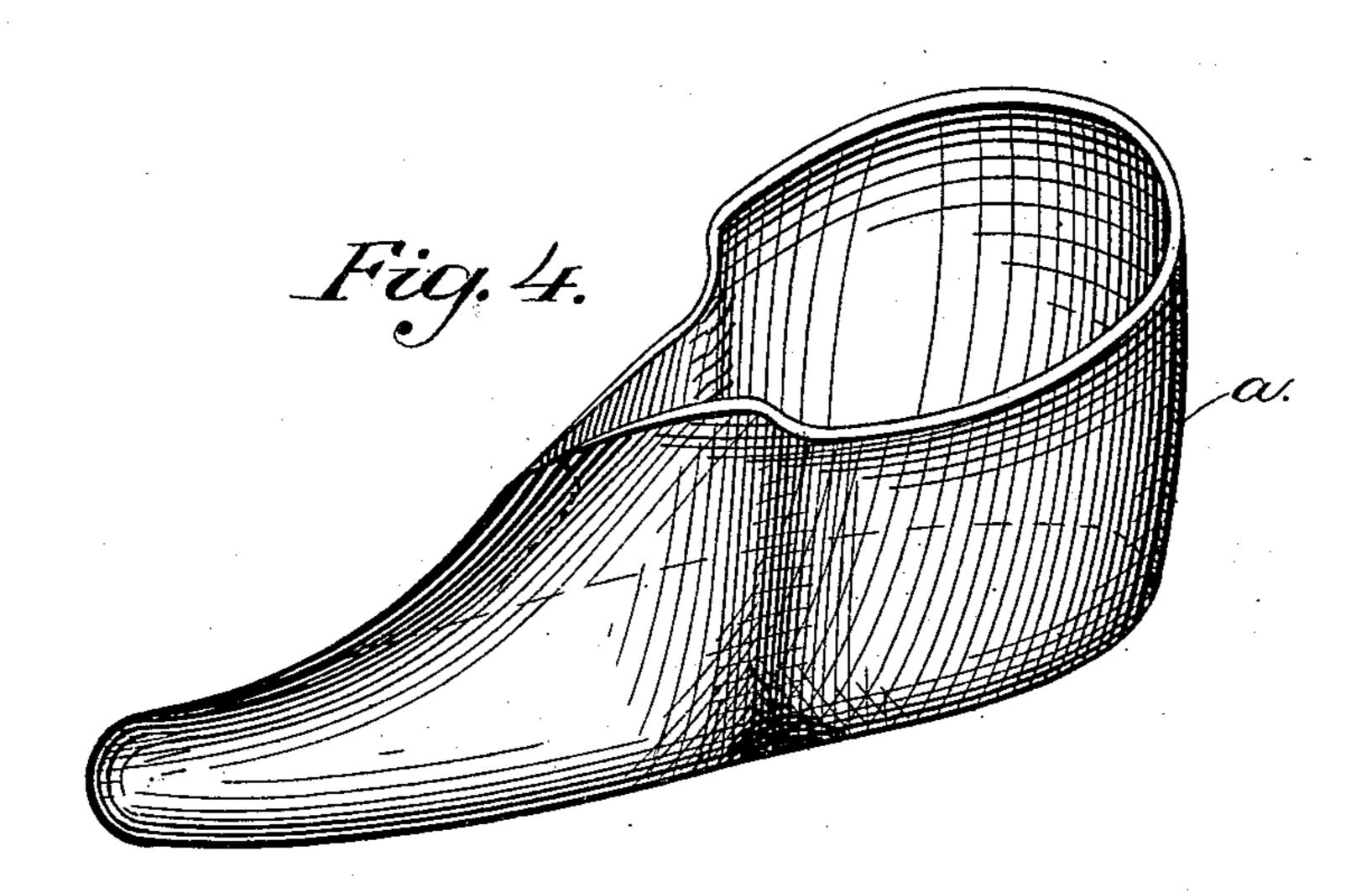
Witnesses: Afred Foller. Harry Polour.

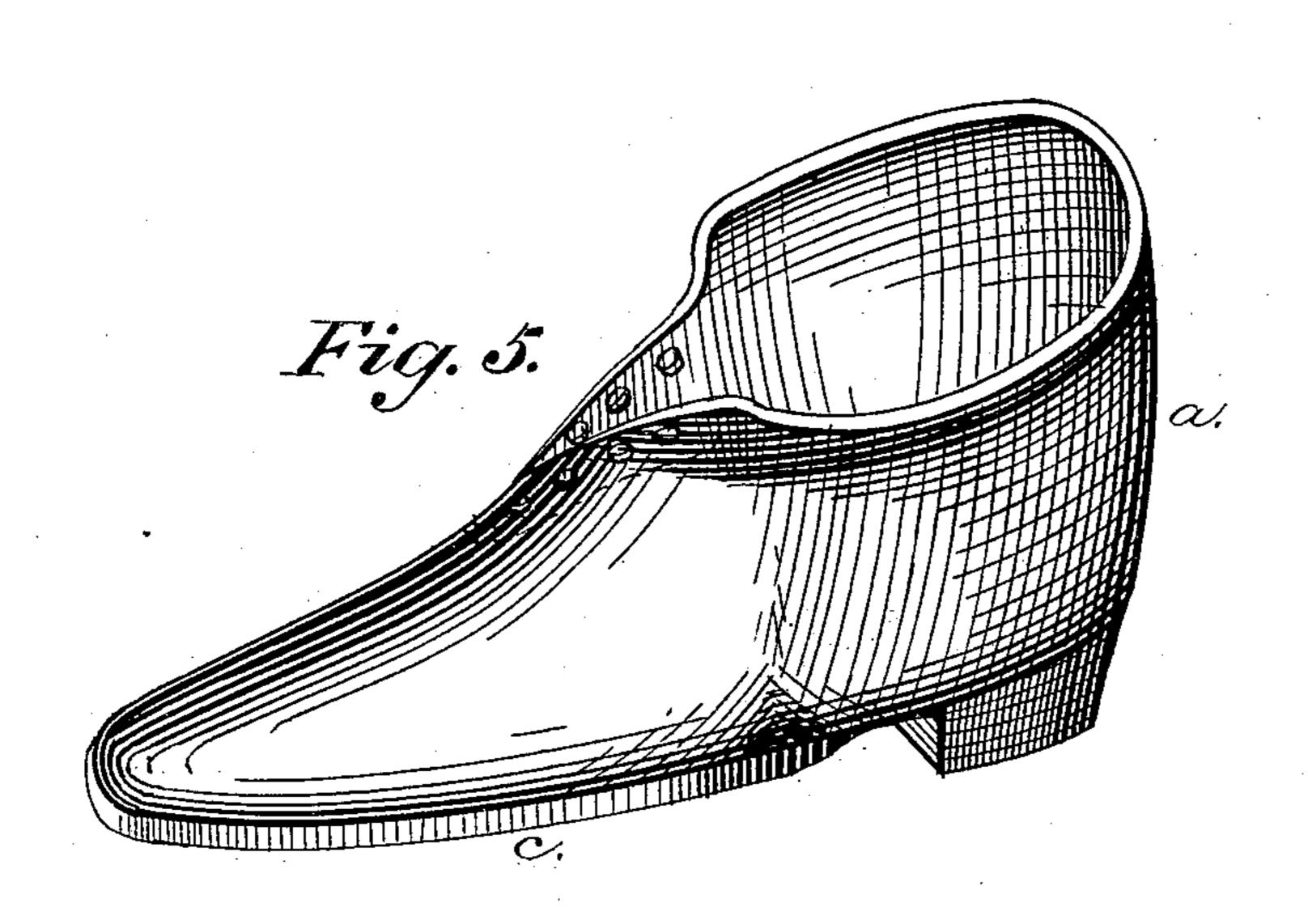
Inventor: Andrew Graff, By Parkwit Sweet from Hely. A. GRAFF.

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Inventor: andrew Graff By Parkwill Sweet M.

United States Patent Office.

ANDREW GRAFF, OF BROOKLYN, NEW YORK.

SPECIFICATION forming part of Letters Patent No. 336,913, dated March 2, 1886.

Application filed June 10, 1885. Serial No. 168,259. (No model.)

To all whom it may concern:

Be it known that I, ANDREW GRAFF, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New 5 York, have invented certain new and useful Improvements in Seamless Shoes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which 10 it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved and novel pattern for the construction of that class of seamless shoes for which Letters Patent | No. 307,540 were granted to me under date of November 4, 1884, the object of my present 20 improvements being to provide a perfect-fitting shoe of one piece of leather or other suitable material, having only one seam visible, and that at the heel portion, and no seams

whatever to hurt the foot at any point; and 25 it consists, essentially, in the details of construction and general arrangement of parts, all as will be hereinafter fully described, and specifically designated in the claim.

In the accompanying drawings, Figure 1 30 represents the blank from which the high-cut shoe is formed; Fig. 2, the blank from which the low-cut shoe is formed. Fig. 3 is an elevation of the blank used for making a gaiter, the sole being attached. Fig. 4 is a perspec-35 tive view of the shoe without the outer sole,

and Fig. 5 a similar view of the complete shoe.

Similar letters of reference occurring on the several figures indicate corresponding parts.

In carrying out my invention the leather or other suitable material which is to form the body of the shoe is first cut out to the required size and shape by one of the patterns shown in Figs. 1, 2, and 3, according as a high 45 or low cut shoe is desired to be made. It is

then closed up at the back by a suitable seam, as shown at a, and thoroughly wet and mangled, so as to make it soft and pliable, the lower edges, b, being then thinned or skived down evenly and drawn over the last or block, to 50 take all the stretch out of the same. The one edge b of the leather is then lapped over upon the other or opposite edge at one side of the last or block and allowed to dry. After it is thoroughly dry it is taken off the last, and the 55 usual linings and trimmings affixed in place, and then again placed upon a low or finishing last. The edges b are then cemented together at one side of the shoe, and rubbed or hammered down perfectly smooth. The bottom 60 of the shoe thus formed is cemented all over, as is also the sole c, which is applied to the same and hammered down well, after which the shoe is ready for sewing and finishing.

The oblong slit or opening d in the high-cut 65 pattern is for the purpose of forming the in-

step, heel, and ankle portions.

By means of my improvements I am enabled to produce a shoe at a greatly reduced cost by a saving in the stock and labor em- 70 ployed, and one that will be perfect fitting without any seams to hurt any portion of the toot.

Having thus described my invention, what I claim as new and useful is—

The pattern or blank having reversed similarly-shaped edges b b, adapted to be united to form a shoe, and having counterpart edges a, which complete the shoe when sewed together at the back, as illustrated, in combina-80 tion with the sole c, joined to the finished shoe, the whole co-operating as and for the purpose set forth.

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

ANDREW GRAFF.

Witnesses:

J. D. H. BERGEN, Ross W. Randolph,