

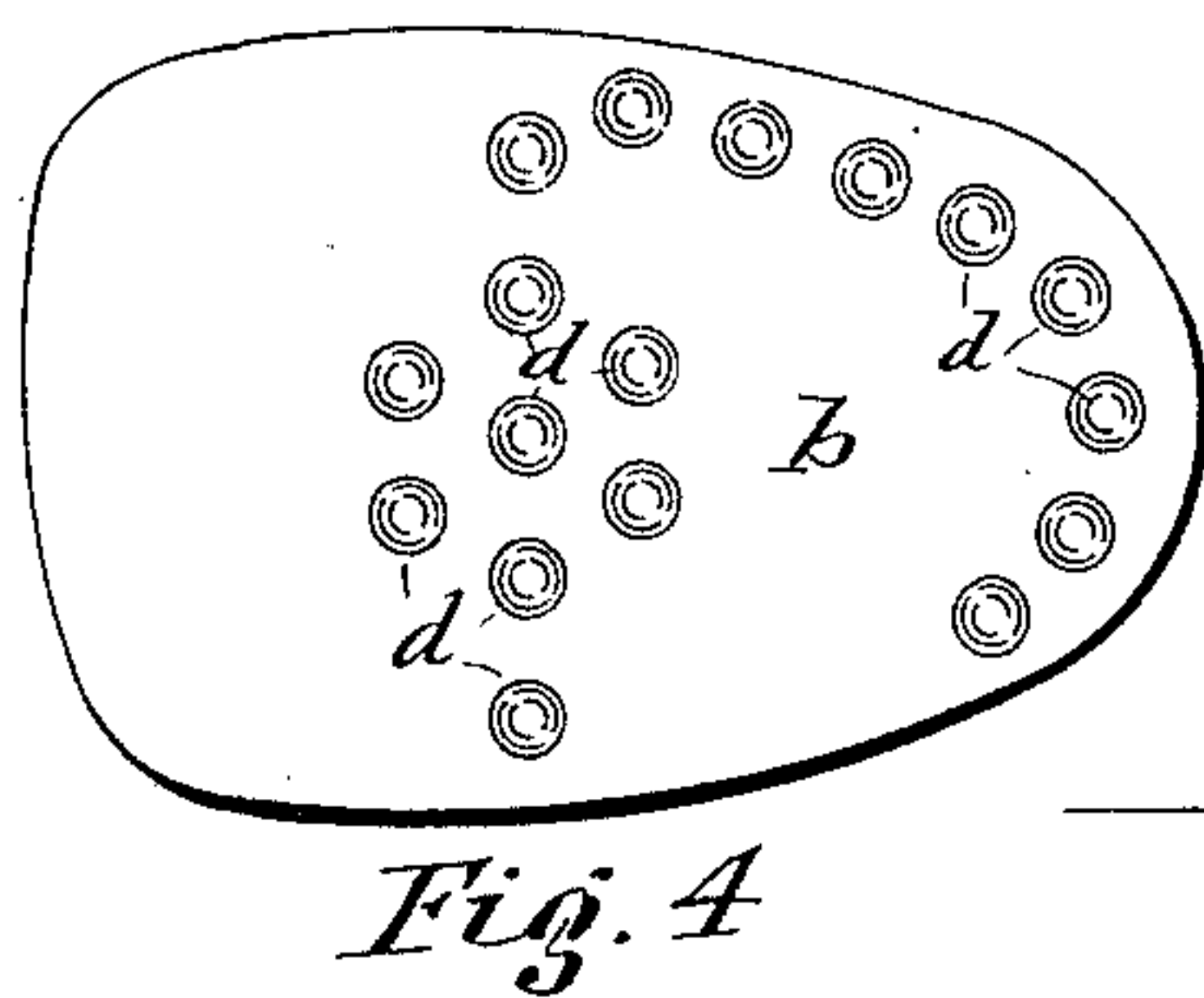
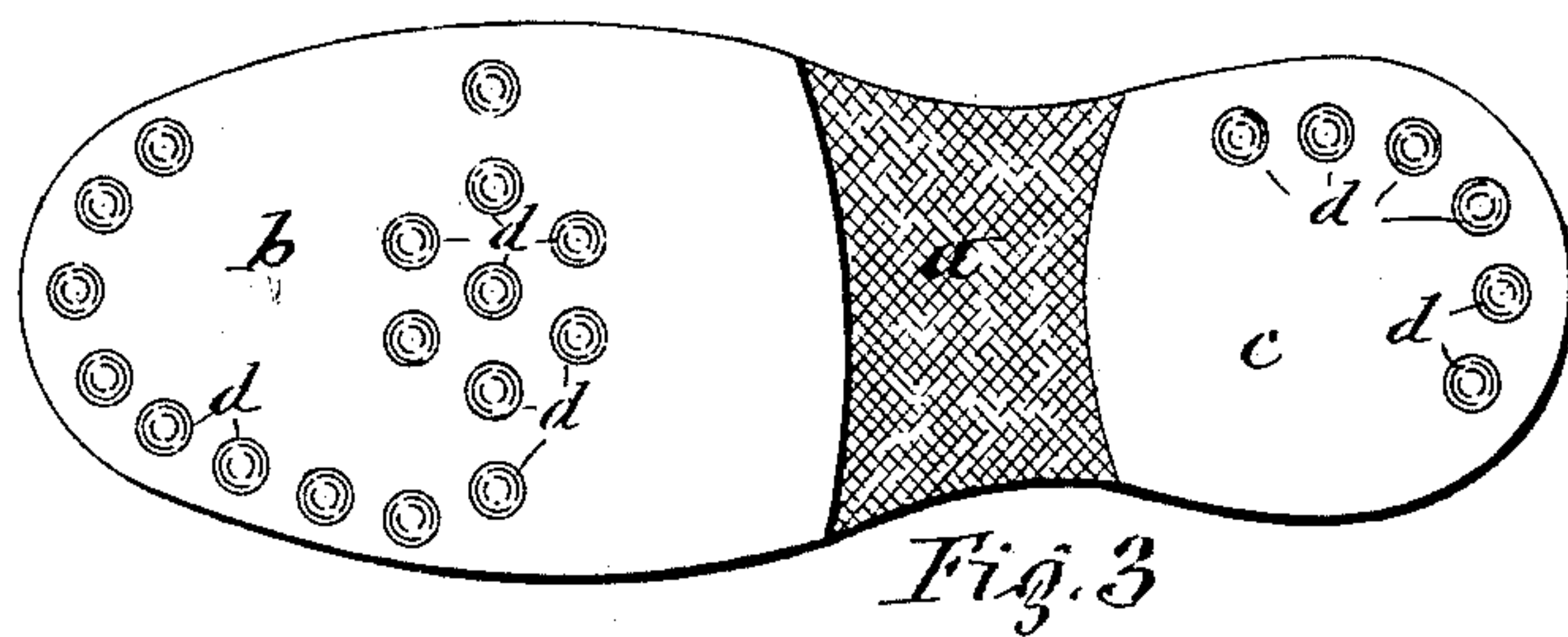
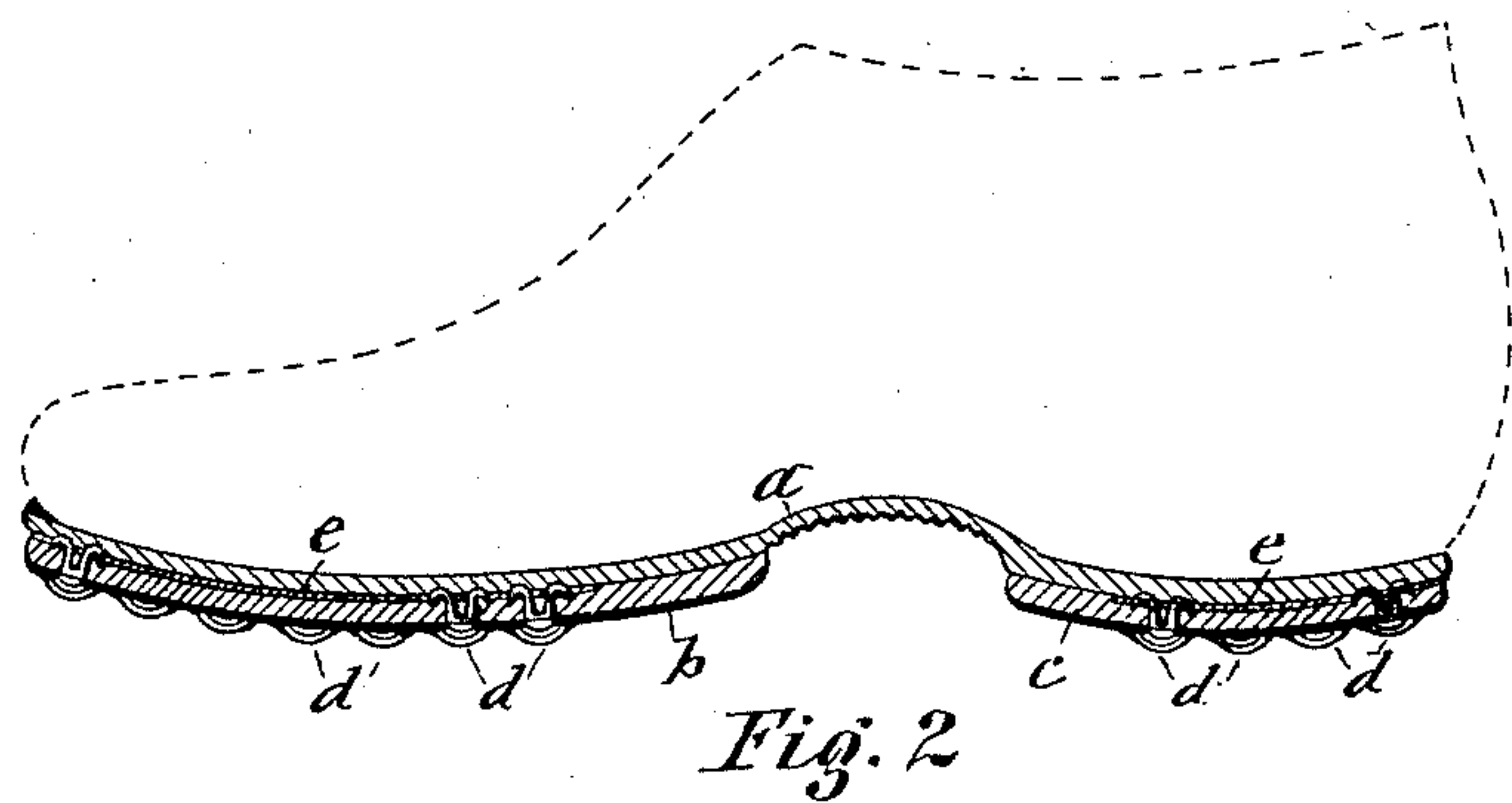
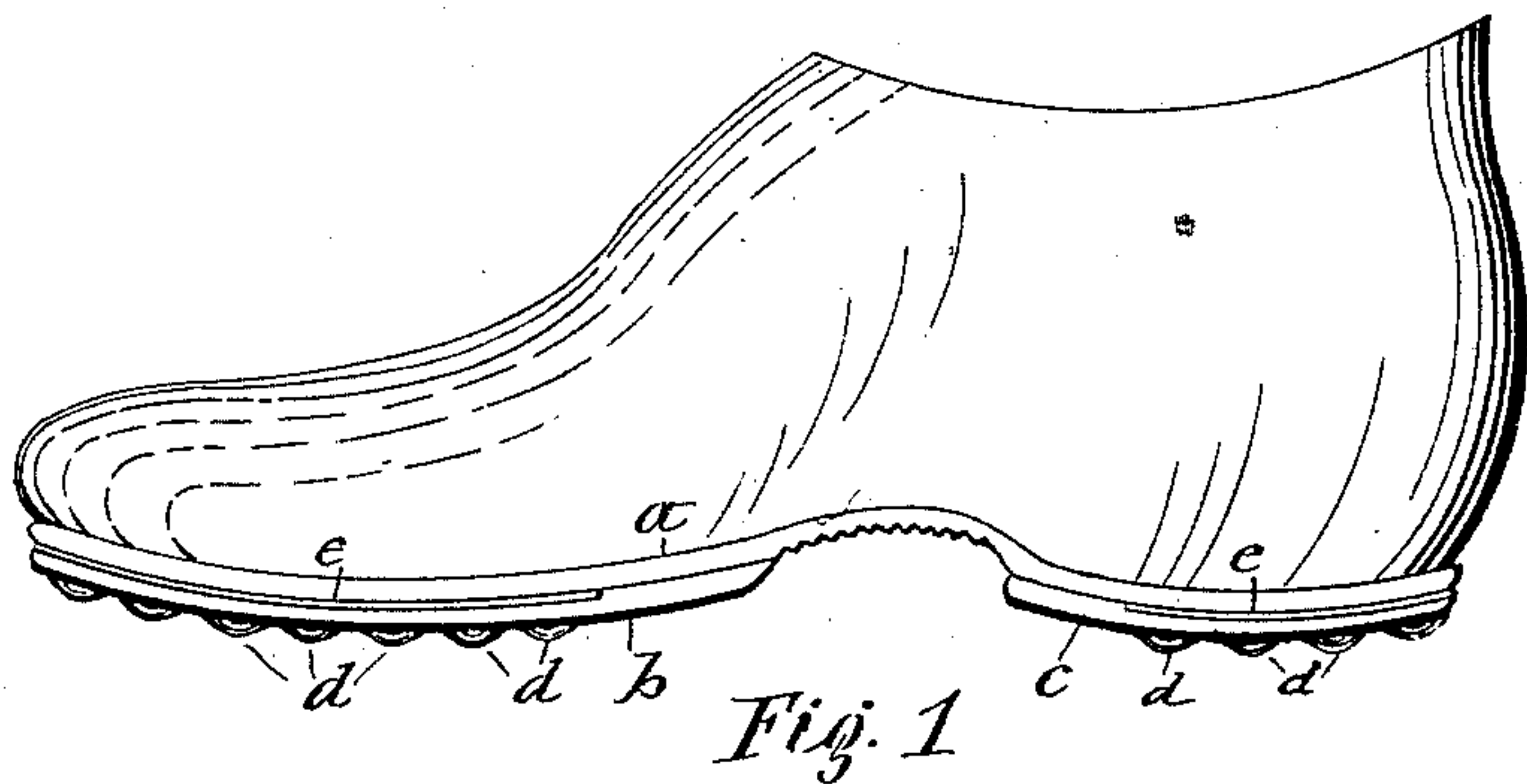
(No Model.)

J. L. THOMSON.

METHOD OF ATTACHING WEAR POINTS TO RUBBER BOOTS.

No. 354,495.

Patented Dec. 14, 1886.



WITNESSES:

A. F. Walz,
E. Bendixon.

INVENTOR:

Judson L. Thomson
per Knell, Lassar & Co.
his Atty

UNITED STATES PATENT OFFICE.

JUDSON L. THOMSON, OF SYRACUSE, NEW YORK, ASSIGNOR TO JUDSON L. THOMSON & CO., OF SAME PLACE.

METHOD OF ATTACHING WEAR-POINTS TO RUBBER BOOTS.

SPECIFICATION forming part of Letters Patent No. 354,495, dated December 14, 1886.

Application filed June 25, 1886. Serial No. 206,202. (No model.)

To all whom it may concern:

Be it known that I, JUDSON L. THOMSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Methods of Attaching Wear-Points to Rubber Boots and Shoes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention is designed as a further improvement in the process of applying metallic wear-points to the soles and heels of rubber boots and shoes described in my Patent No. 335,323, of February 2, 1886. By the process
15 therein set forth the metallic wear-points are secured to the primary rubber sole and heel, which are cemented to the usual inner cloth lining of the boot or shoe. The consequence is that the clinched ends of the prongs of the
20 rivets or wear-plates are in too close proximity to the foot of the wearer, and the thin cloth lining over the said ends of the wear-plates is rapidly worn away.

The object of my present invention is to
25 preserve the inside lining of the boot or shoe, and to interpose a rubber sole and heel between the clinched ends of the rivets or wear-plates and the foot of the wearer, so as to more effectually protect the latter, and to perfectly
30 unite with said sole and heel the supplemental sole and heel which carry the rivets or wear-plates; and to that end my invention consists in the improved method of applying the metallic wear-points, as hereinafter fully de-
35 scribed, and specifically set forth in the claim.

The annexed drawings illustrate my invention in its various stages.

Figure 1 is a side view of a complete rubber shoe embodying my invention. Fig. 2 is
40 a vertical longitudinal section of the bottom of said shoe. Figure 3 is an inverted plan view of the shoe, and Fig. 4 is an inverted plan view of the tap or the supplemental sole equipped with the metallic wear-points pre-
45 paratory to attaching the said tap to the sole of the shoe.

My improved process of applying the metallic wear-points to rubber boots or shoes is carried on during the manufacture of the latter.

50 I form the boot or shoe with the usual unvulcanized rubber bottom, *a*, or sole and heel

in one piece in the ordinary and well-known manner; but before vulcanizing said boot or shoe I form taps or a separate supplemental sole, *b*, and heel *c* of unvulcanized rubber, gen- 55 erally by stamping or cutting said taps out of a sheet or sheets of said material. To these taps I secure the metallic rivets or wear-points *d d* by forcing the shanks or attaching-prongs thereof through the taps from the under side 60 of the latter and clinching them on the upper side of the same, and in order to obtain a more secure hold for the clinches I cement onto the upper side of the tap a lining, *e*, of canvas or other suitable material and pass the attaching- 65 prongs of the metallic wear-points *d d* through said lining and clinch them upon the same, as illustrated in Fig. 2 of the drawings. This unvulcanized tap or supplemental sole *b* and heel *c*, with the metallic wear-points attached 70 thereto, as aforesaid, I cement at its lined side onto the ordinary or primary unvulcanized rubber bottom or sole and heel *a*, as shown in Fig. 2 of the drawings. After this is effected I vulcanize the boot or shoe in the 75 usual and well-known manner, and thereby effectually unite the supplemental sole *b* and heel *c* with the ordinary or primary sole and heel *a*, and produce a rubber boot or shoe, which has the attaching shanks or prongs of 80 the metallic wear-points so embedded in its bottom as to securely retain them and effectually guard against penetration of water through the bottom.

I am aware that prior to my present inven- 85 tion rivets or wear-points have been applied to taps formed of vulcanized rubber, and such taps have been cemented to the vulcanized rubber sole and heel; but such construction is defective in that the vulcanized tap is liable 90 to be cracked by the pressure received from the attaching-shanks of the wear-points when forcing the same through the tap, and it is a well-known fact that vulcanized-rubber surfaces cannot be securely cemented together; 95 hence such prior construction fails to produce a rubber boot or shoe possessing the advantages attained by my improved process of applying the metallic wear-points. Neither do I claim, broadly, the attachment of metallic 100 wear-points to the soles and heels of rubber boots and shoes before the vulcanization of

the same, as I am aware the same is not new; but

What I claim as new, and desire to secure by Letters Patent, is—

- 5 The method of applying metallic wear-points to the soles and heels of rubber boots and shoes, consisting in forming the boot or shoe with an unvulcanized rubber bottom and forming a separate supplemental sole or heel
10 of unvulcanized rubber, then cementing onto the upper side of the latter a lining of canvas or other suitable material, then forcing the attaching-prongs of the metallic wear-points through the said supplemental sole and heel
15 and through the lining thereof, and clinching

them upon the latter, then cementing the lined side of the supplemental sole and heel to the unvulcanized rubber bottom of the boot or shoe, and then vulcanizing the latter with its aforesaid attachments, substantially as 20 specified.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New 25 York, this 23d day of June, 1886.

JUDSON L. THOMSON. [L. S.]

Witnesses:

FREDERICK H. GIBBS,
C. BENDIXON.