

(No Model.)

C. SCHUMMEL
RUBBER SHOE.

No. 432,149.

Patented July 15, 1890.

FIG. 3

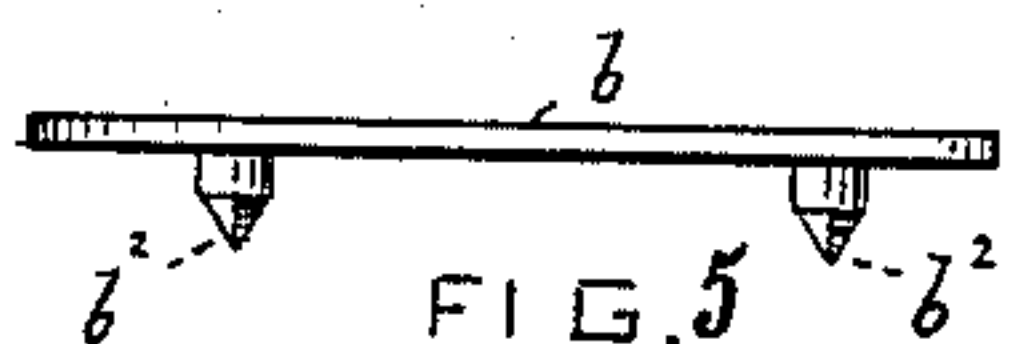
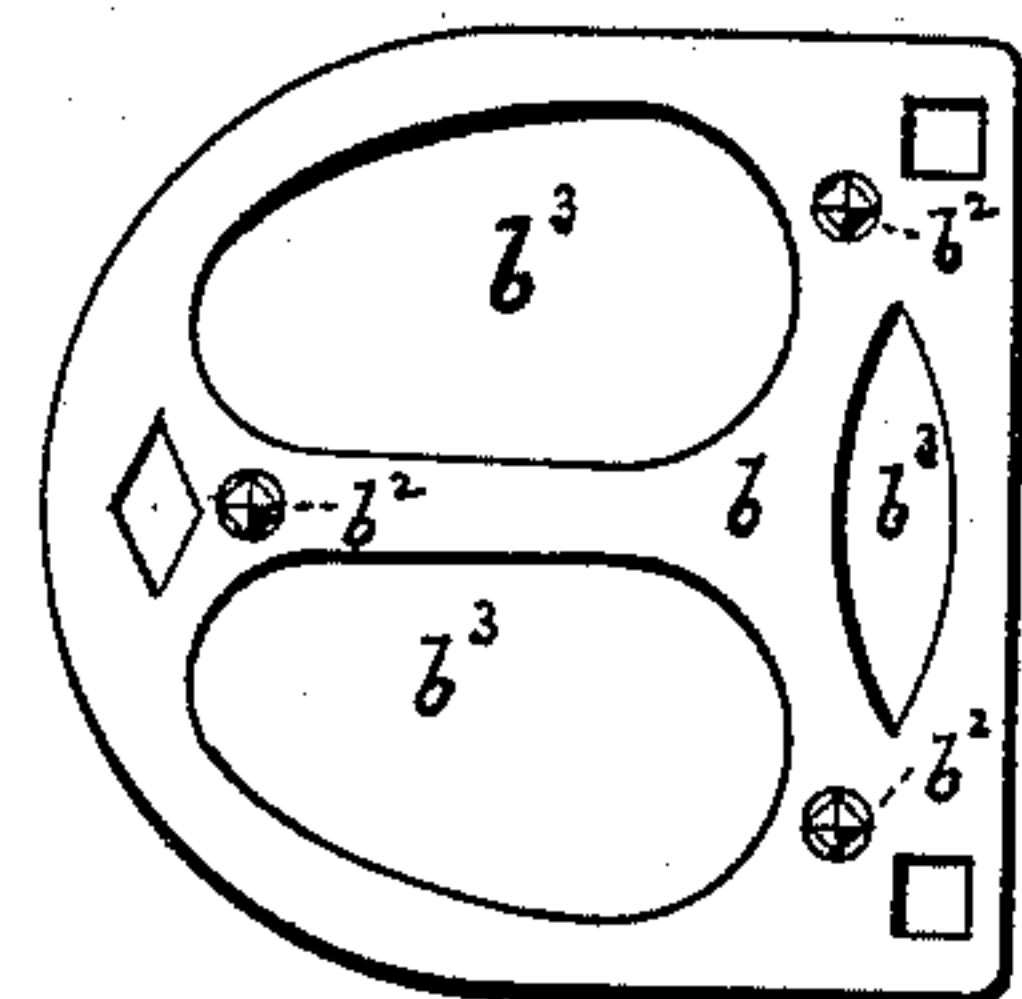


FIG. 4

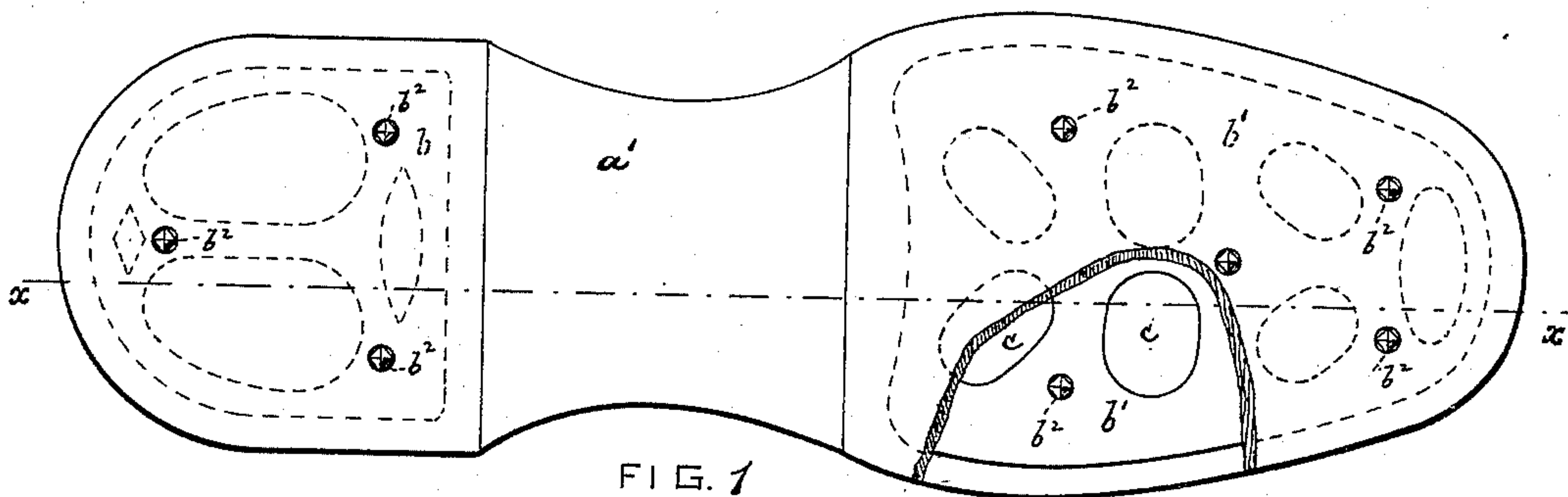
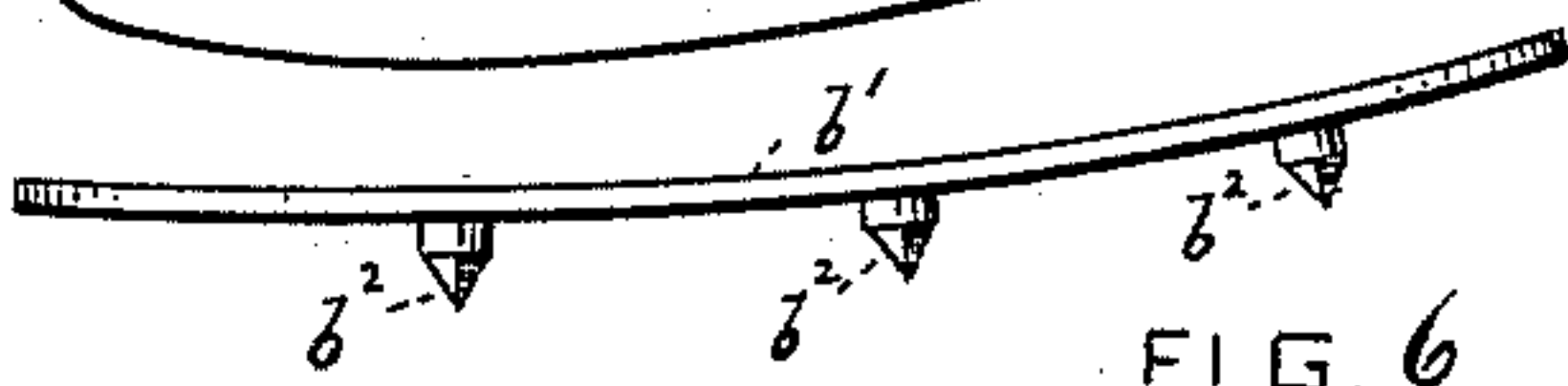
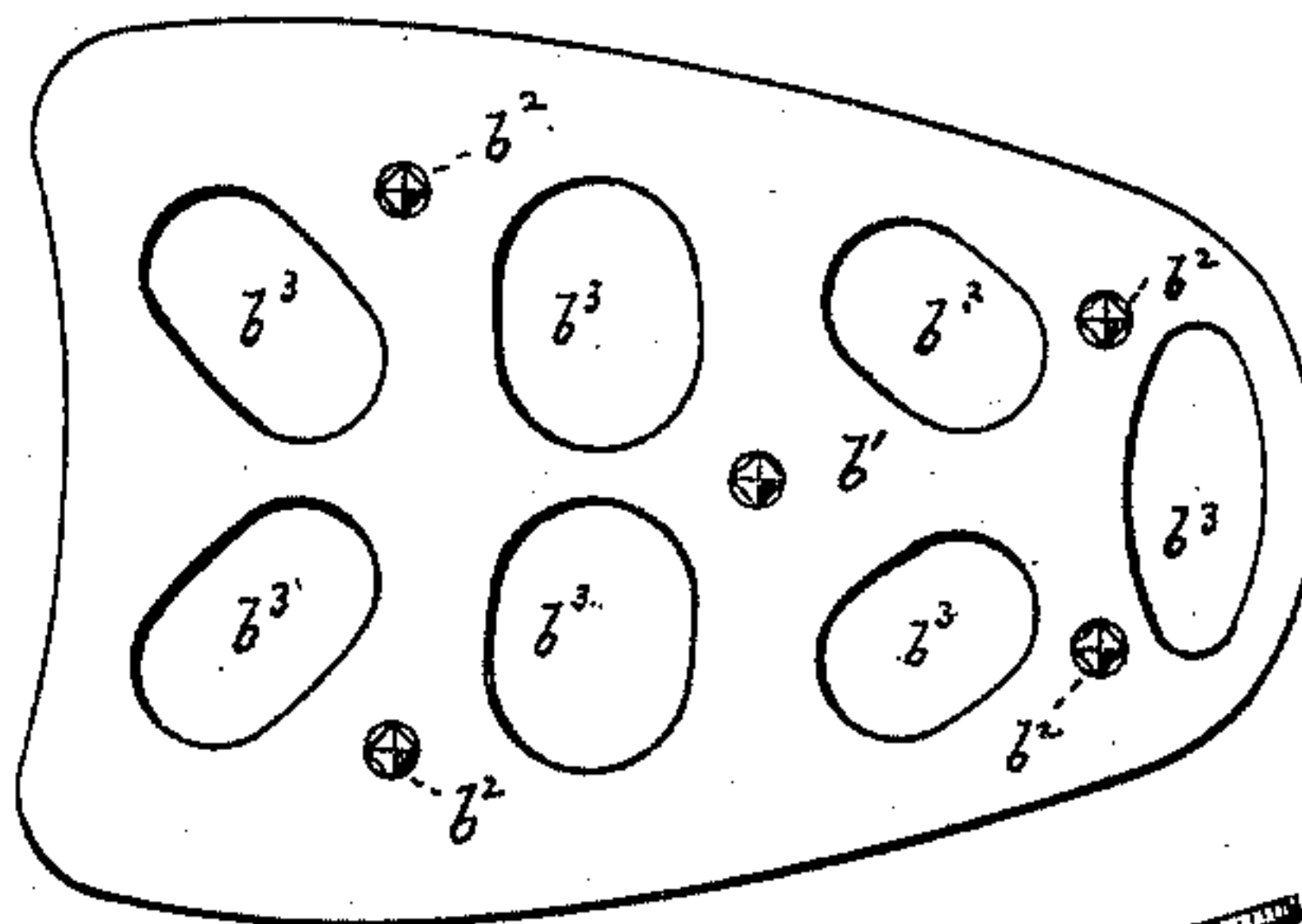


FIG. 1

FIG. 7

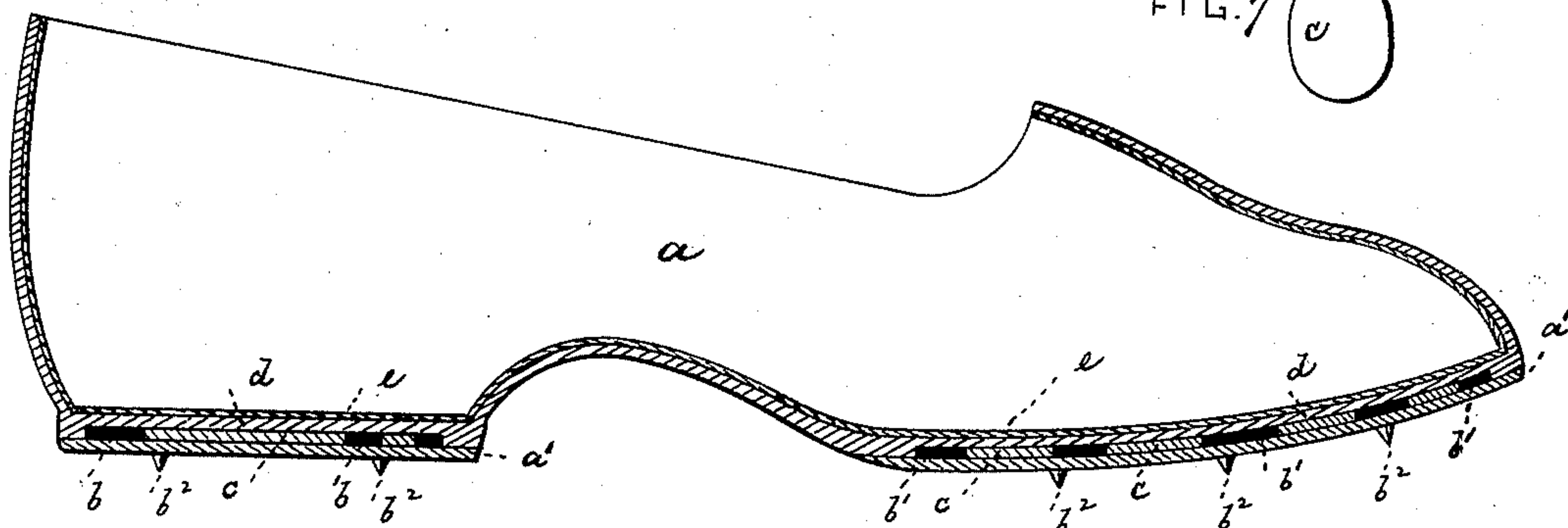


FIG. 2

WITNESSES

W. H. Lowe
W. H. Wagner

INVENTOR

C. Schummel
by his attorneys
Roeder & Briesen

UNITED STATES PATENT OFFICE.

CARL SCHUMMEL, OF HOBOKEN, NEW JERSEY.

RUBBER SHOE.

SPECIFICATION forming part of Letters Patent No. 432,149, dated July 15, 1890.

Application filed April 25, 1890. Serial No. 349,426. (No model.)

To all whom it may concern:

Be it known that I, CARL SCHUMMEL, of Hoboken, Hudson county, New Jersey, have invented an Improved Rubber Shoe, of which
5 the following is a specification.

This invention relates to a rubber shoe provided with an inner plate having downwardly-extending spurs that pierce the sole of the shoe. In this way the sole is protected against
10 rapid wear, while the spurs at the same time constitute ice-creepers.

The invention consists in the various features of improvement more fully pointed out in the claim.

15 In the accompanying drawings, Figure 1 is a bottom view of my improved rubber shoe; Fig. 2, a vertical section on line $x x$, Fig. 1, with sole a' partly broken away. Figs. 3 and 4 are bottom views of the heel-plate b and
20 sole-plate b' , respectively. Figs. 5 and 6 are edge views of said plates, and Fig. 7 a face view of one of the plugs c .

The letter a represents a rubber shoe or boot of ordinary or suitable construction and
25 having the usual rubber sole a' . Into the shoe a there is placed upon the sole a' a perforated metal heel-plate b and a perforated metal sole-plate b' . If desired, however, only one plate need be used, either the heel-plate
30 or the sole-plate. The plates $b b'$ are provided with downwardly-extending spurs b^2 , that pass through and below the sole a' to constitute ice-creepers and protect the sole against rapid wear. Into the perforations b^3
35 of the plates $b b'$, I place small rubber plugs c , that fill out such openings and are flush at

their upper faces with the faces of the plates. Over the plates $b b'$ and the plugs c , I place a rubber insole d and a superposed lining e .

In manufacturing the shoe the plates $b b'$, 40 plugs c , and insole d are properly put in place within the shoe, with the spurs projecting through the sole a' . The entire shoe is then put into the vulcanizer. Here the parts $a' c d$ will become all united into one piece, properly confining the perforated plates $b b'$ between them. The spurs b^2 should be coated with rubber cement, so that in vulcanizing, the rubber sole a' closes up tightly around them and no opening is left for the water to
50 enter.

The rubber plugs c are of the same thickness substantially as the spur-carrying plates $b b'$. Thus these plugs, besides uniting the insole to the shoe-sole, prevent the insole from
55 caving into the openings of plates $b b'$.

I claim as my invention—

The combination of a rubber shoe with outer sole a' , a perforated plate, spurs on said plate, rubber plugs fitted within the openings of
60 said plate, so as to close the same and produce an even upper surface, and an insole above the plate and the plugs, the plugs being united at their upper and lower faces, respectively, to the insole and the shoe-sole, and
65 preventing sagging of the insole, substantially as specified.

CARL SCHUMMEL.

Witnesses:

F. V. BRIESEN,
A. JONGHMANS.