

(No Model.)

J. T. GRAY.  
HEEL FOR BOOTS OR SHOES.

No. 358,194.

Patented Feb. 22, 1887.

Fig. 1.

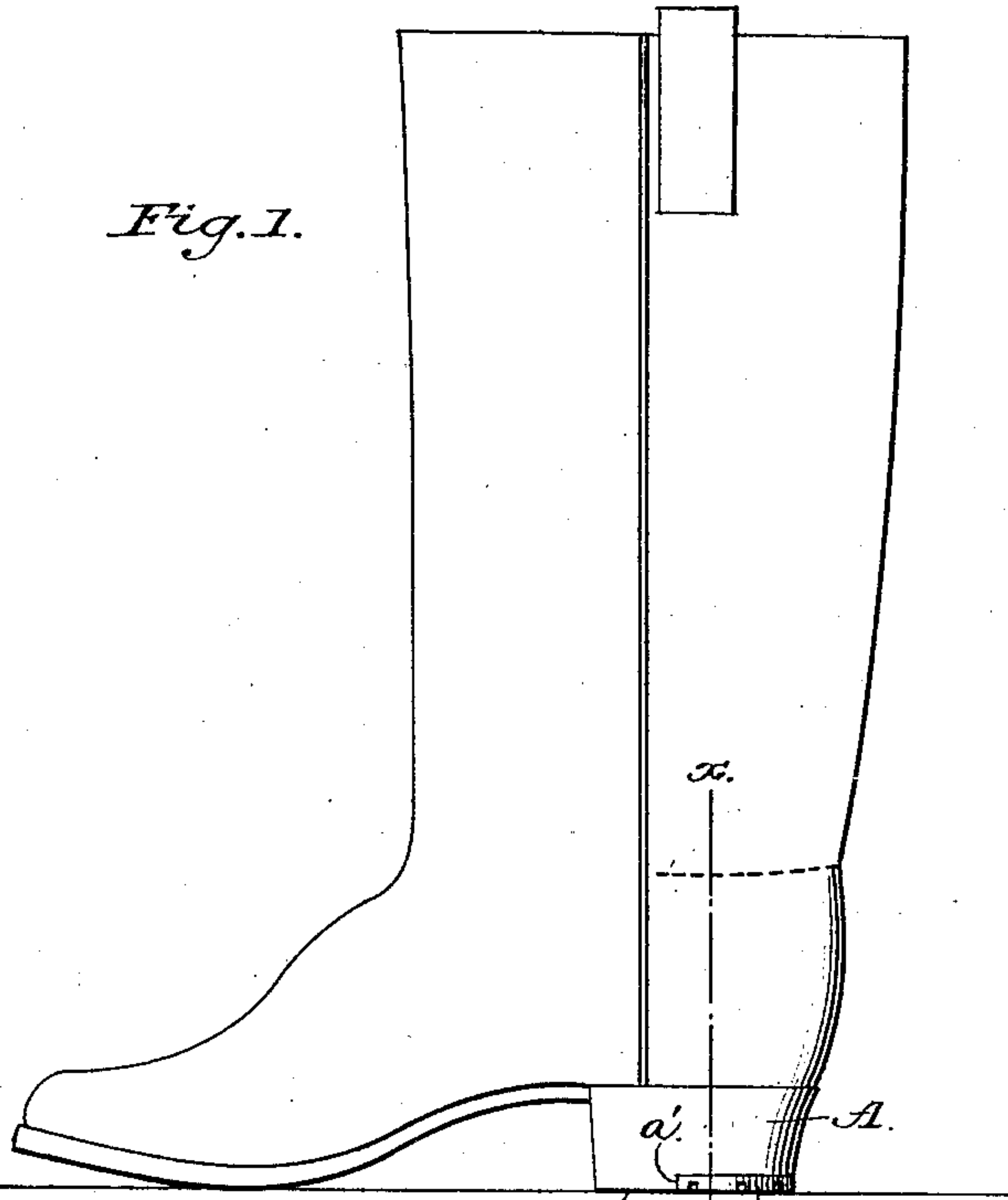


Fig. 2.

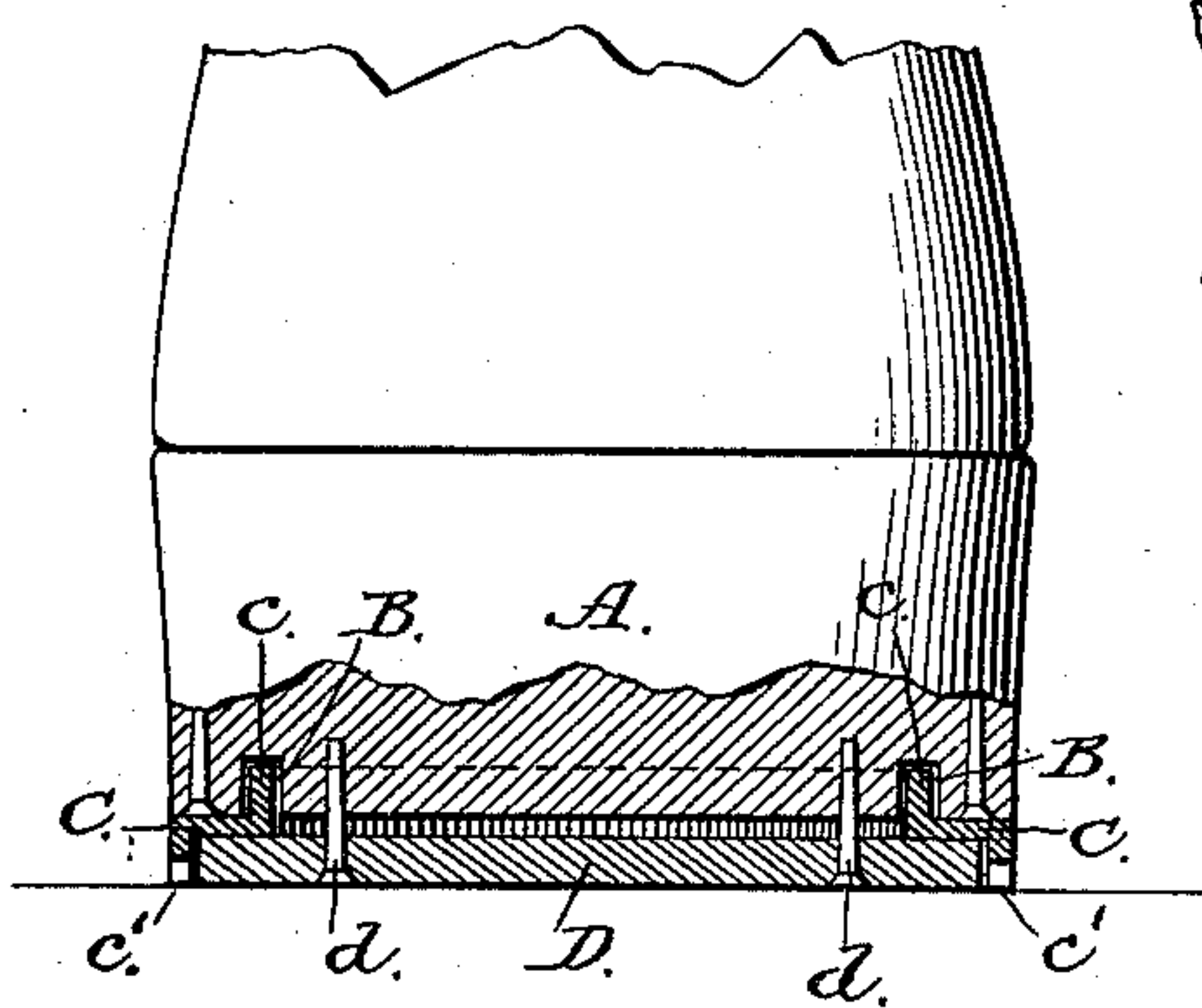


Fig. 3.

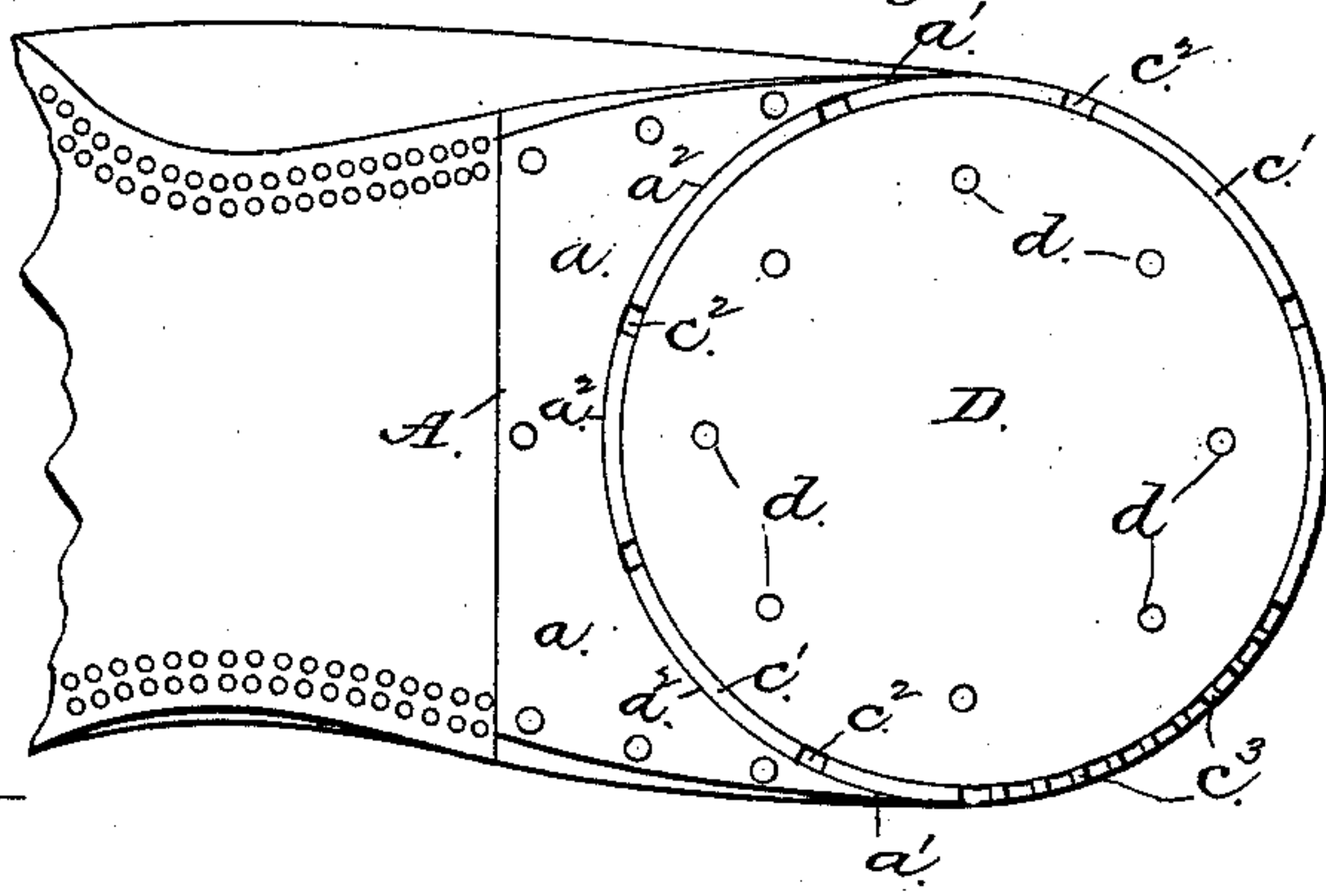
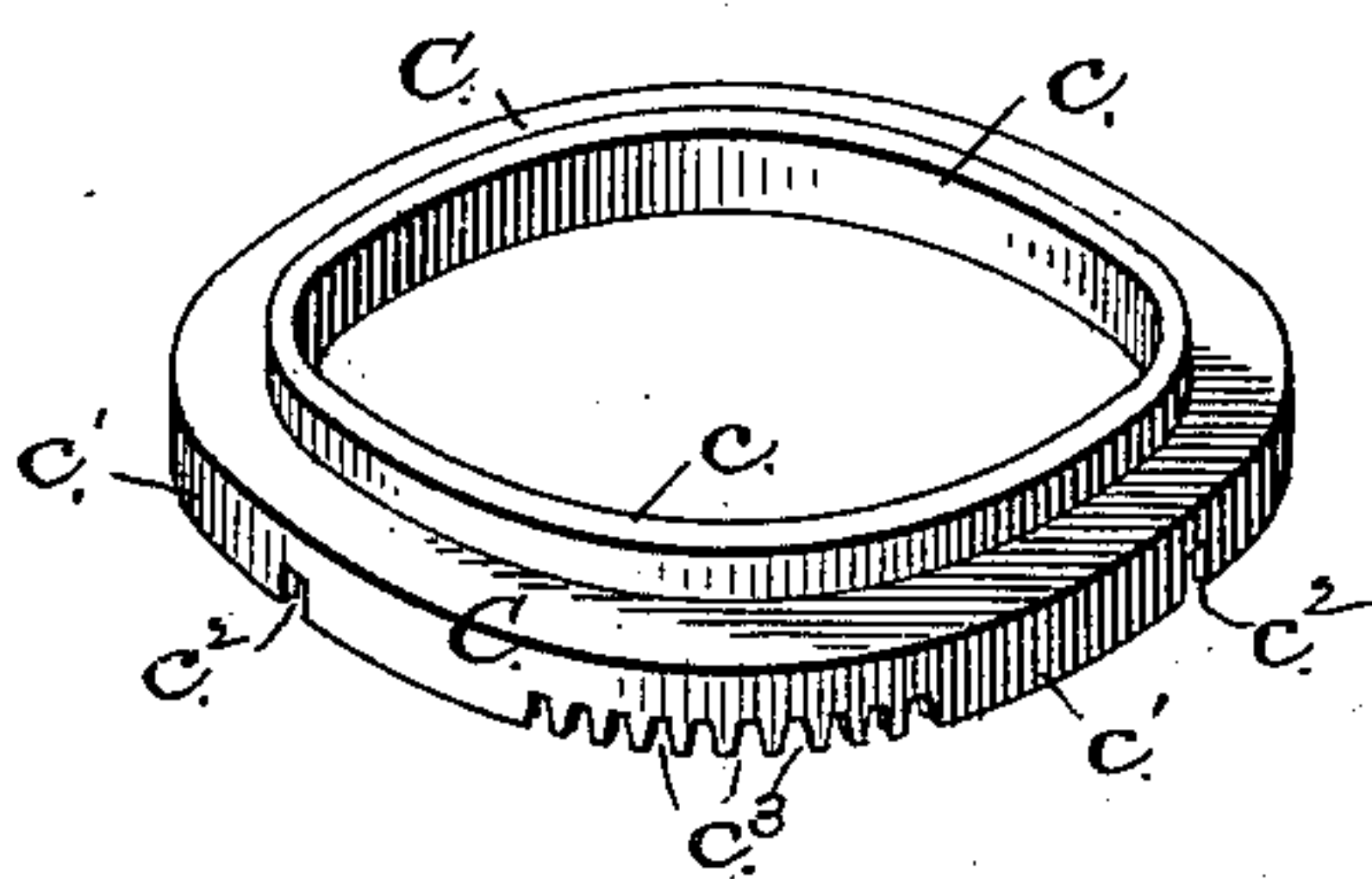


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## HEEL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 358,194, dated February 22, 1887.

Application filed November 4, 1886. Serial No. 217,984. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN THOMAS GRAY, of Gray, in the county of Stutsman and Territory of Dakota, have invented a new and Improved  
5 Boot and Shoe Heel, of which the following is a full, clear, and exact description.

My invention relates to the heels of boots and shoes, and has for its object to provide a comparatively-inexpensive heel so made and  
10 fitted with an adjustable metallic wear-plate that uneven wear of the heel or sole of the boot or shoe will be prevented and the durability of the foot-wear will be materially increased.

15 The invention consists in certain novel features of construction and combinations of parts of the boot and shoe heel, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying  
20 drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a boot provided with my improved heel. Fig. 2 is a  
25 back view of part of the quarter and heel of the boot, with the heel partly broken away and in section transversely on the line  $x x$ , Fig. 1, and drawn to a larger scale. Fig. 3 is a bottom view of the boot-heel and adjacent  
30 parts, and Fig. 4 is a perspective view of the metallic heel-plate as viewed from the upper side.

The main body A of the heel of a boot or shoe made in accordance with my invention  
35 is cut away to form a recess at its lower back portion, and whereby a bottom lift or projection,  $a$ , is left at the forward part of the heel, and the rear edge of the lift  $a$  is concaved from its rear extremities,  $a'$   $a'$ , to form with the  
40 back part of the heel a true circular outline or contour. In this rounded recessed part of the body of the heel there is formed an annular recess or groove, B, into which fits an upwardly-projecting flange,  $c$ , on an annular  
45 metal plate, C, which has a downwardly-projecting flange,  $c'$ , which at its outer face stands about flush with the round back portion of the heel and also fits against the rear concavity,  
50 the heel, with the bottom edge of which the flange  $c'$  of the heel-plate C stands about flush.

Within the heel-plate C there is fitted a leather lift or disk, D, the edge or periphery of which fits quite snugly within the flange  $c'$  of the plate C, and the inner face of which disk  
55 D lies flat against the body portion of the plate, and whereby nails or screws  $d$ , driven into the body A of the heel through the disk D, will hold both the disk and the heel-plate  
60 C to be rotated by applying a knife or hook or suitable tool of any kind within any one of a series of notches,  $c^2$ , made in the flange  $c'$  of the heel-plate.

In the flange  $c'$  of the metallic plate C there  
65 are formed a series of grooves, providing between them a series of spurs or teeth,  $c^3$ , which may be brought to the outer side portion of the heel by turning the plate C, and, as shown  
70 in Fig. 3 of the drawings, to prevent slipping of the wearer of the boot or shoe on icy pavements or roads.

It will be noticed that the flange  $c'$  of the metallic heel-plate C is exposed at the edge of the heel from the points  $a'$   $a'$  at opposite sides  
75 of the heel clear around the back of the heel, and consequently re-enforces the edge or margin of the entire back of the heel, to prevent quick wear of the heel, and as one portion of the heel-plate C—usually the part exposed at  
80 the outer side part of the heel—wears a little, the plate C may be turned around more or less to present a new edge surface of its flange  $c'$ , as required; hence the heel of the boot or shoe will always be kept comparatively true  
85 and flat, to prevent running over of the foot of the wearer at the counter of the boot or shoe and insure an even wear of the sole of the boot or shoe, and consequently promote its durability.  
90

It is obvious that as the flange  $c'$  of the heel-plate C fits quite snugly between the concaved  
edge  $a^2$  of the raised part  $a$  of the body of the heel and the periphery of the inner stationary  
95 heel-plate D the friction induced by this interposition of the flange of the heel-plate C will prevent turning of it by ordinary wear of the boot or shoe; hence the heel-plate C will turn only by applying force to its flange  $c'$ , and at the will of the wearer. Furthermore, this  
100 clamping of the heel-plate flange by the parts  $a$  D also prevents rattling of the metallic plate



and deadens very largely the sharp click or noise incident to contact with pavements or walks of metallic wear-plates of this character,

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

1. A boot or shoe heel comprising a main body portion, A, having a front lift or projection,  $a$ , concaved at  $a^2$ , whereby a recess is formed at the rear bottom part of the heel, and the heel-body provided with an annular groove, B, in its rear recessed portion, a metallic wear-plate, C, provided with a flange,  $c$ , entering said groove B, and a downwardly-projecting wear-receiving flange,  $c'$ , and a retaining lift or plate, D, placed within and upon the plate C and secured to the recessed part of the body of the heel, substantially as described, for the purposes set forth.

2. The combination, with the body A of a boot or shoe heel provided with a front lift or projection,  $a$ , concaved at  $a^2$ , of an annular metal plate provided with a wear-receiving flange, as  $c'$ , and a bottom lift or plate, D, secured to the body of the heel within the flange

$c'$  and clamping said flange against the concaved edge  $a^2$  of the part  $a$  of the heel, substantially as described, for the purposes set forth.

3. The combination, with the body A of a boot or shoe heel provided with a front lift or projection,  $a$ , concaved at  $a^2$ , of an annular metal plate provided with a wear-receiving flange,  $c'$ , and a bottom lift or plate, D, secured to the body of the heel within said flange  $c'$ , and said flange provided with a series of spurs or teeth,  $c^3$ , substantially as described, for the purposes set forth.

4. A metal wear-plate for boot or shoe heels, comprising an annular plate, C, provided with an upwardly-projecting flange,  $c$ , adapted to a groove in the heel, and a downwardly-projecting flange,  $c'$ , to take the wear, and said flange  $c'$  provided with one or more notches,  $c^3$ , substantially as shown and described.

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Witnesses:

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