

(No Model.)

C. H. STRAIGHT.
RUBBER BOOTS AND SHOES.

No. 270,348.

Patented Jan. 9, 1883.

Fig. 1.

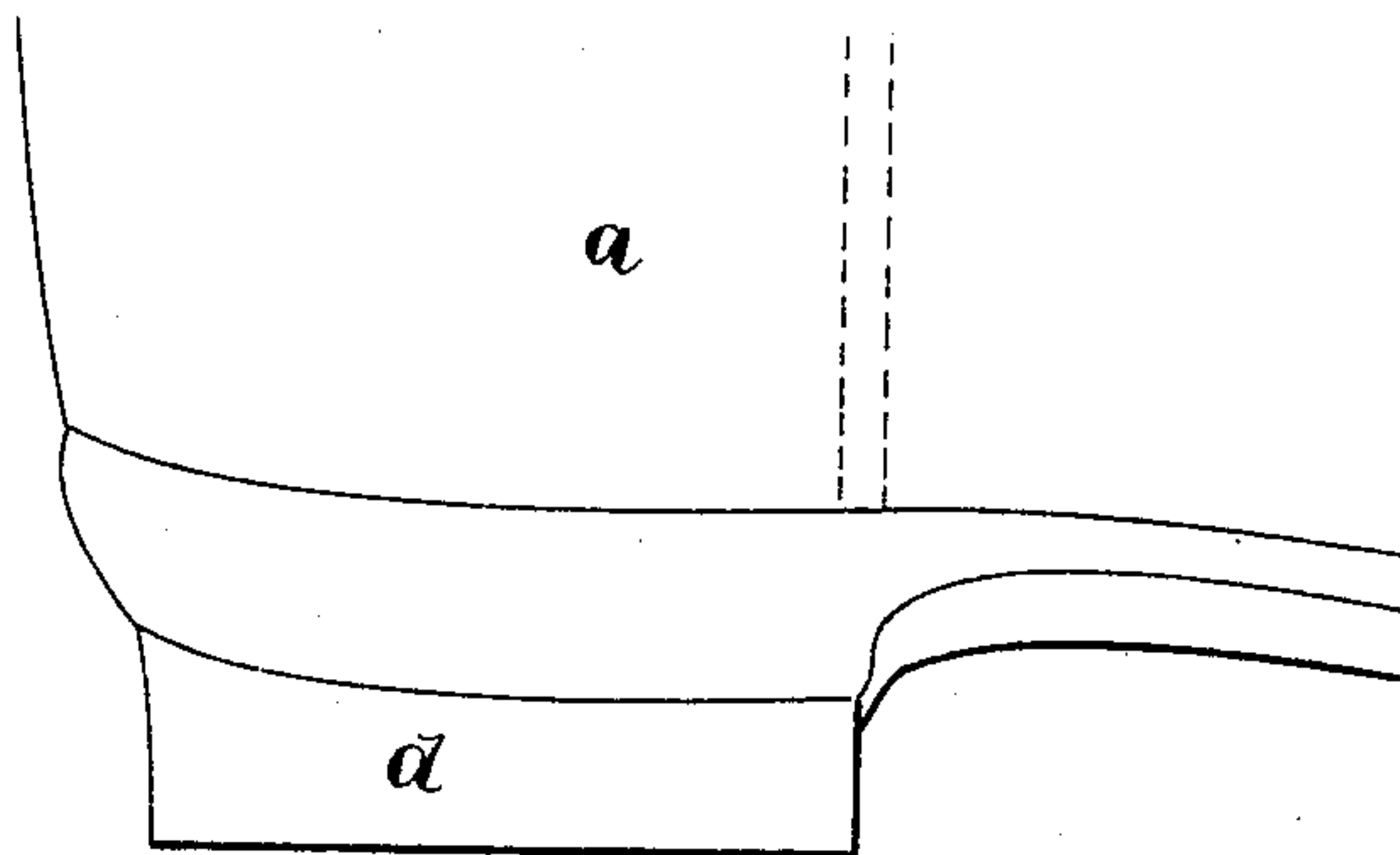


Fig. 2.

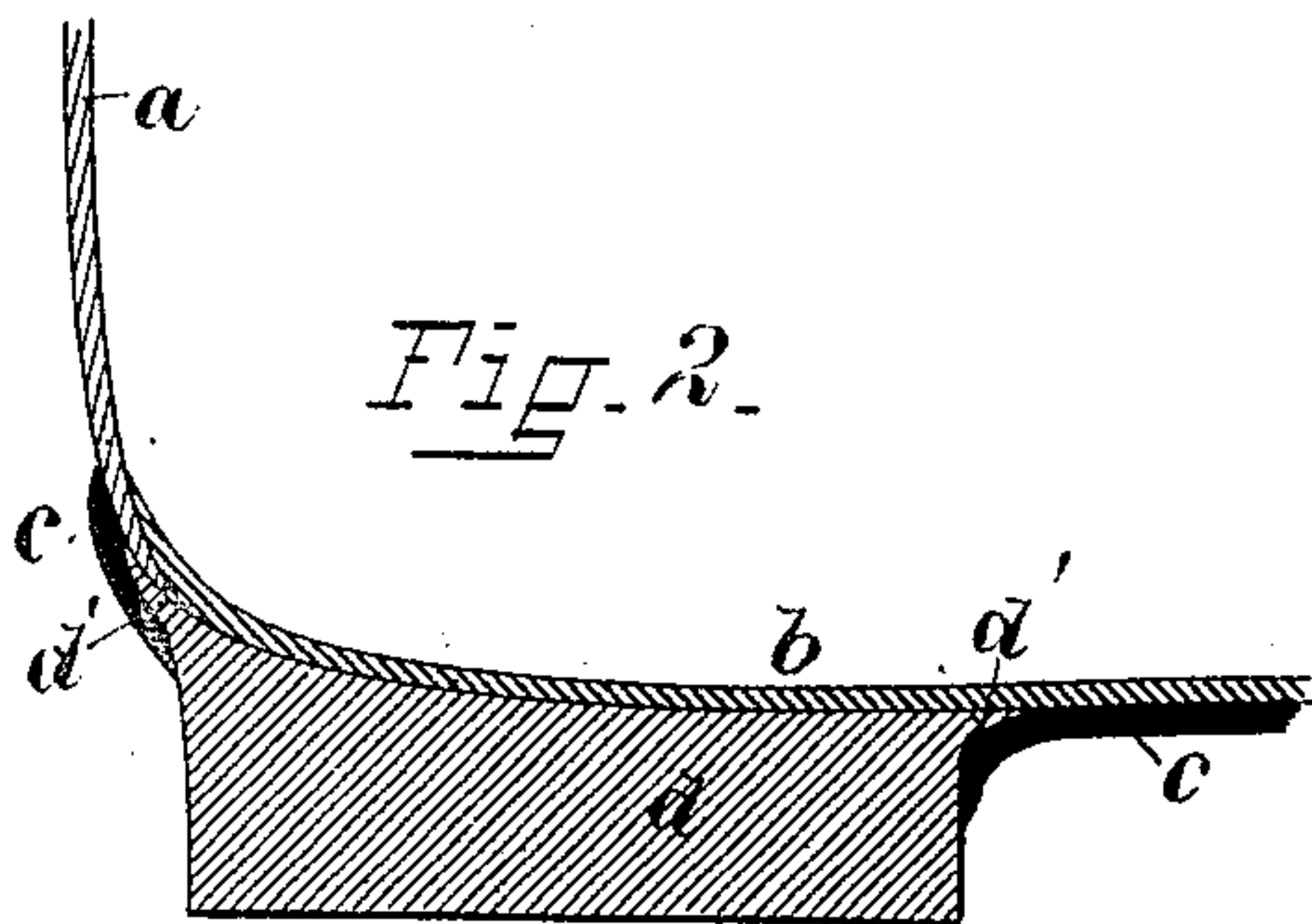


Fig. 3.

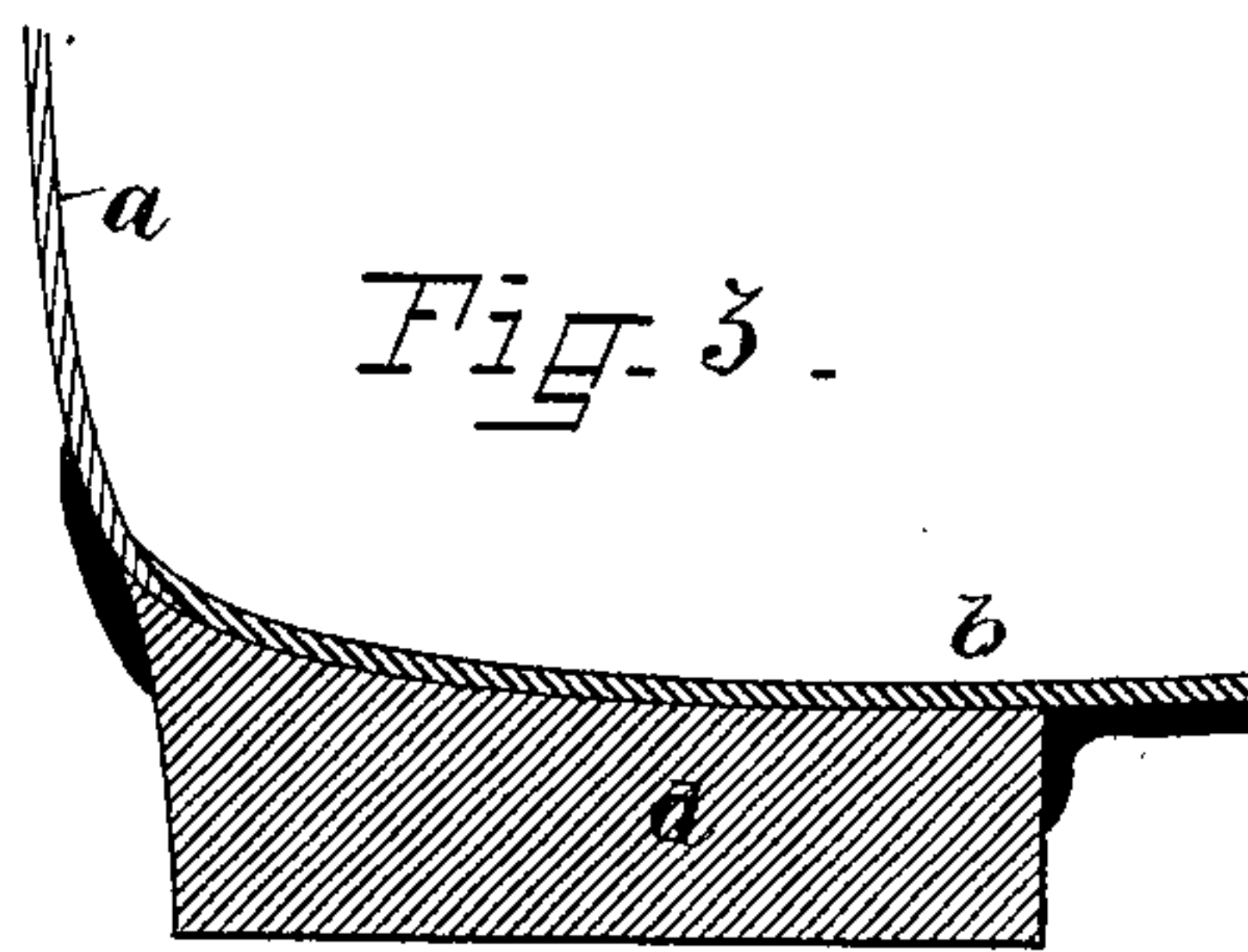
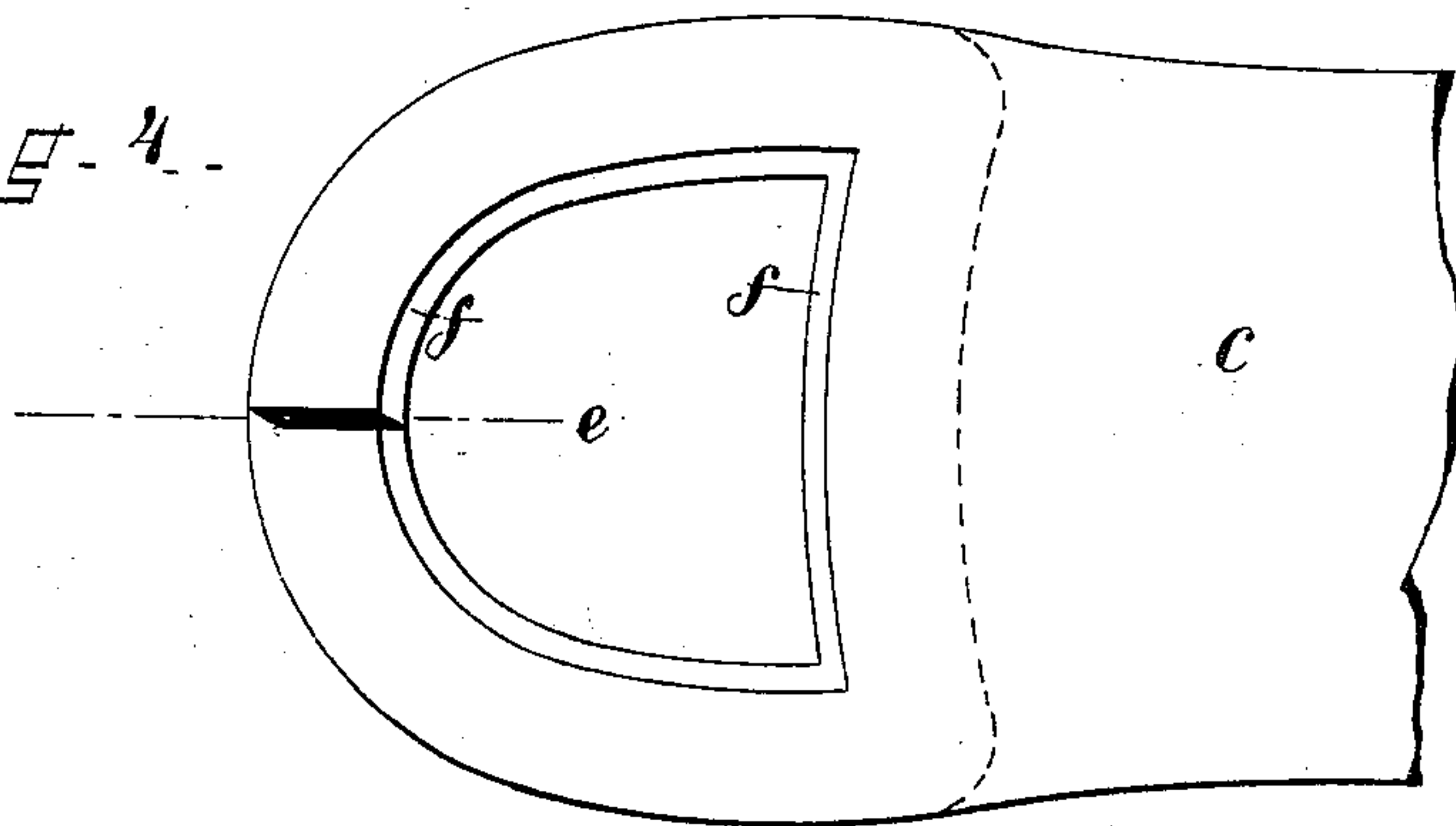


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CLARK H. STRAIGHT, OF BRISTOL, RHODE ISLAND, ASSIGNOR OF ONE-HALF
TO GEORGE H. STRAIGHT, OF SAME PLACE.

RUBBER BOOT AND SHOE.

SPECIFICATION forming part of Letters Patent No. 270,348, dated January 9, 1883.

Application filed April 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, CLARK H. STRAIGHT, of Bristol, in the county of Bristol and State of Rhode Island, have invented a new and useful Improvement in Rubber Boots and Shoes; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to secure the heels of rubber boots and shoes more firmly to the sole than was heretofore possible.

The invention consists in securing the heel within the sole by cutting out an opening somewhat smaller than the largest portion of the heel, and cementing the sole around the heel, as will be more fully set forth hereinafter.

Rubber heels are usually secured to rubber boots and shoes by cementing the heel to the sole. In use the strain on the heel is liable to start the union of the heel with the sole at the edge of the heel, and when once started sand and dirt are liable to work in between the heel and the sole, and thus further separate the two. To prevent this and make a more durable connection, I cement the sole to the outer surface of the heel, and then cement the whole to the inner sole.

Figure 1 is a view of the heel portion of a rubber boot, showing the sole cemented to the outer surface of the heel and the upper. Fig. 2 is a sectional view of the heel portion of a rubber boot showing the heel provided with a flange extending outward all around the heel, the sole extending over such flange and cemented to the heel. Fig. 3 is a sectional view of the heel portion of a rubber boot showing the heel inserted into the sole and the sole cemented to the heel and upper. Fig. 4 is a view of the heel portion of a rubber sole, showing the opening into which the heel is inserted cut out of the sole.

In the drawings, *a* is the portion of the rubber boot forming the upper and heel-cap of the boot. This portion is, in the manufacture of the boot, lapped over the inner sole, *b*, which is first placed on the boot-tree, and on the lapped ends of the heel-cap and upper the sole is secured by cementation.

c is the sole, to which the heel has heretofore been secured by cementation, and frequently by nails.

d is the heel, which in Fig. 2 is shown provided with laterally-extending flanges *d'*, and in Fig. 3 without these flanges.

e in Fig. 4 is an opening cut into the sole *c* to receive the heel.

f f are scarfed or beveled edges, as is shown in the solid section. Into this opening *e* the heel is inserted so as to project below the sole. The beveled edges are drawn down and fit the heel closely. They are pressed against the heel so as to adhere thereto, and the sole and heel is then united with the upper part of the boot. When the heels are provided with the flanges *d'* these extend over the solid part of the sole, and therefore add materially to the strength. The whole boot is now subjected to vulcanization, by which all the parts are firmly united. By setting the heel into the sole a perfectly tight joint is secured, and the edge of the heel is very firmly held, so that it is not liable to work loose. The center of the heel is cemented to the lapped edges of the heel-cap and the inner sole in the usual manner; but by the peculiar dovetailing of the heel into the sole a much stronger union of the heel with the boot is secured, making a better and more durable rubber boot.

Instead of setting the heel into an opening cut into the sole, a piece of rubber may be cut to form a flange around the heel, which can be cemented to the side of the heel and to the upper, the heel in this case being cemented to the sole in the usual manner.

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

1. The combination, in a rubber boot or shoe, with the heel-cap and upper, of a sole provided with an opening, into which the heel is inserted and secured by cementing the sole to the sides of the heel and to the upper, as described.

2. The combination, with the upper and the insole of a rubber boot or shoe, of a heel provided with the flanges *d' d'*, adapted to be inserted into the sole-opening and secured by cementation, as described.

CLARK H. STRAIGHT.

Witnesses:

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