

No. 666,497.

Patented Jan. 22, 1901.

T. CROWLEY.
RUBBER BOOT.

(Application filed Apr. 11, 1900.)

(No Model.)

Fig. 1.

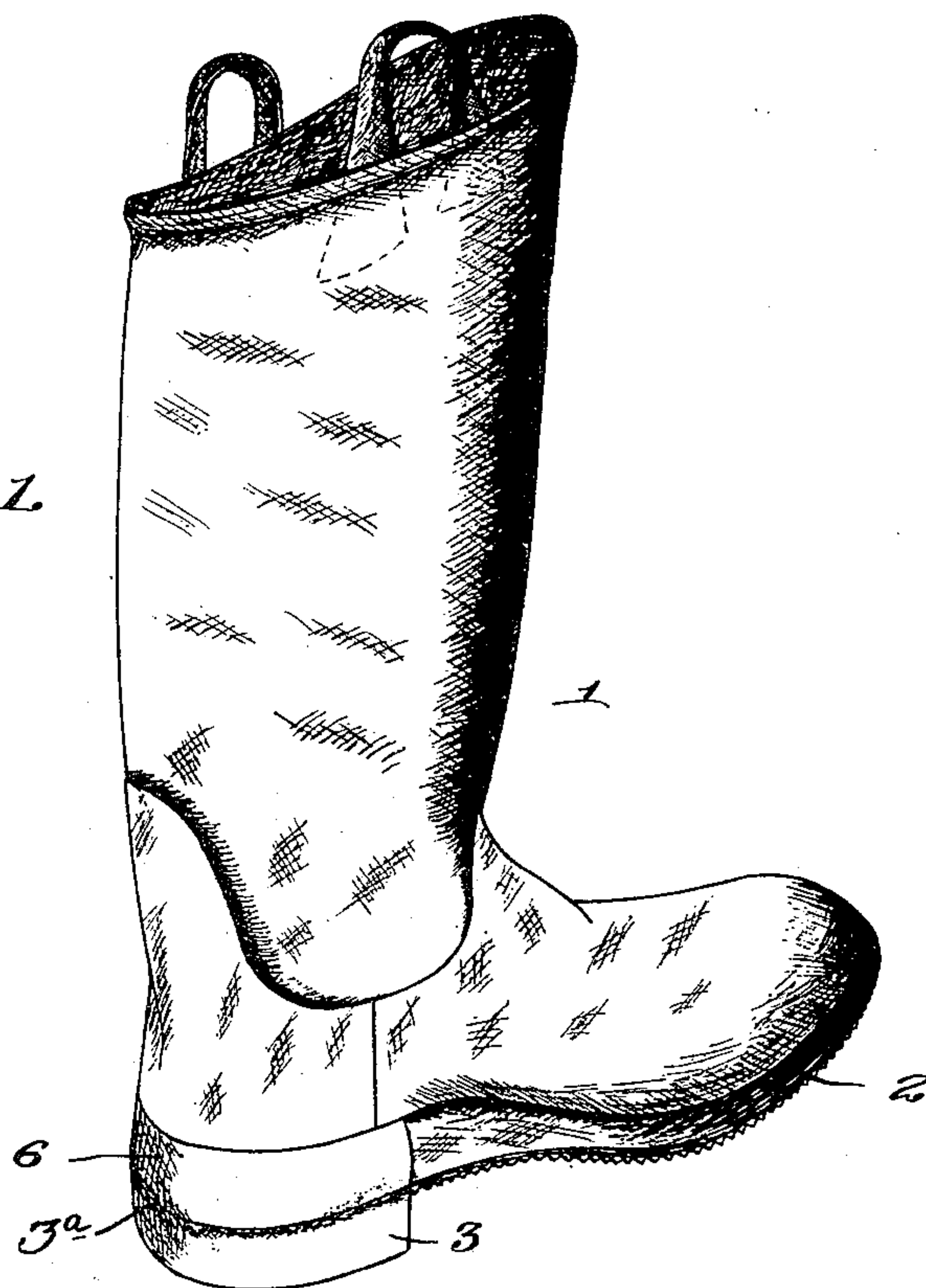


Fig. 2.

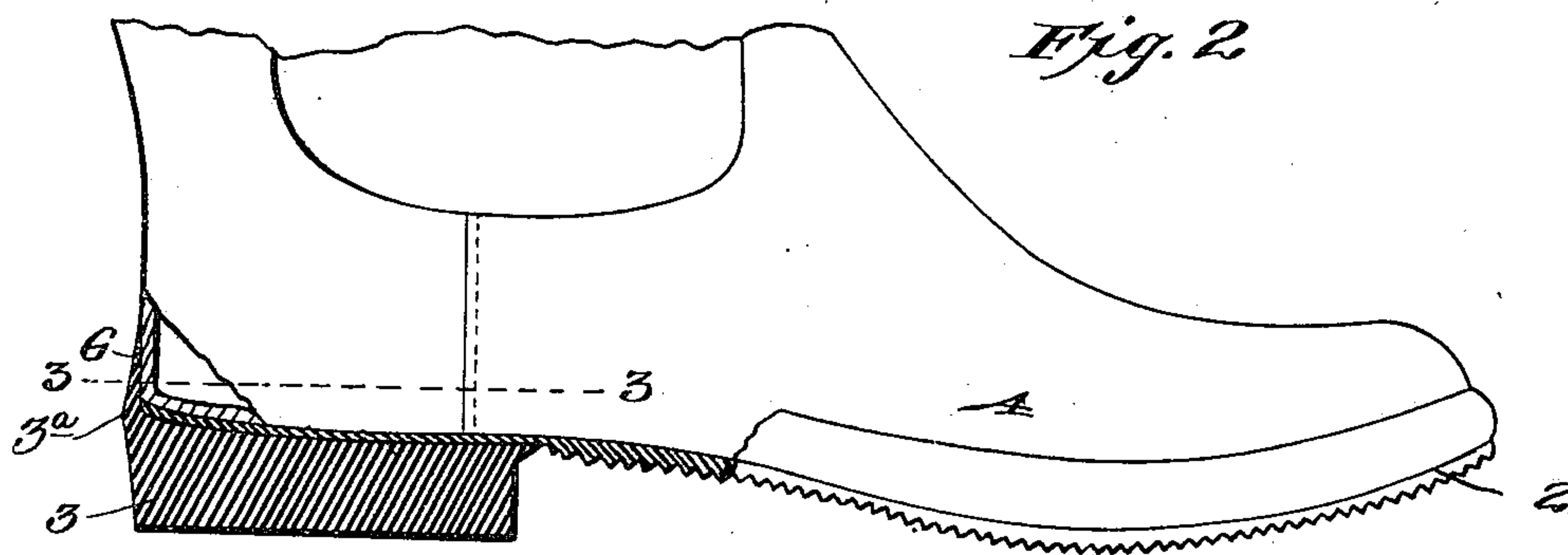
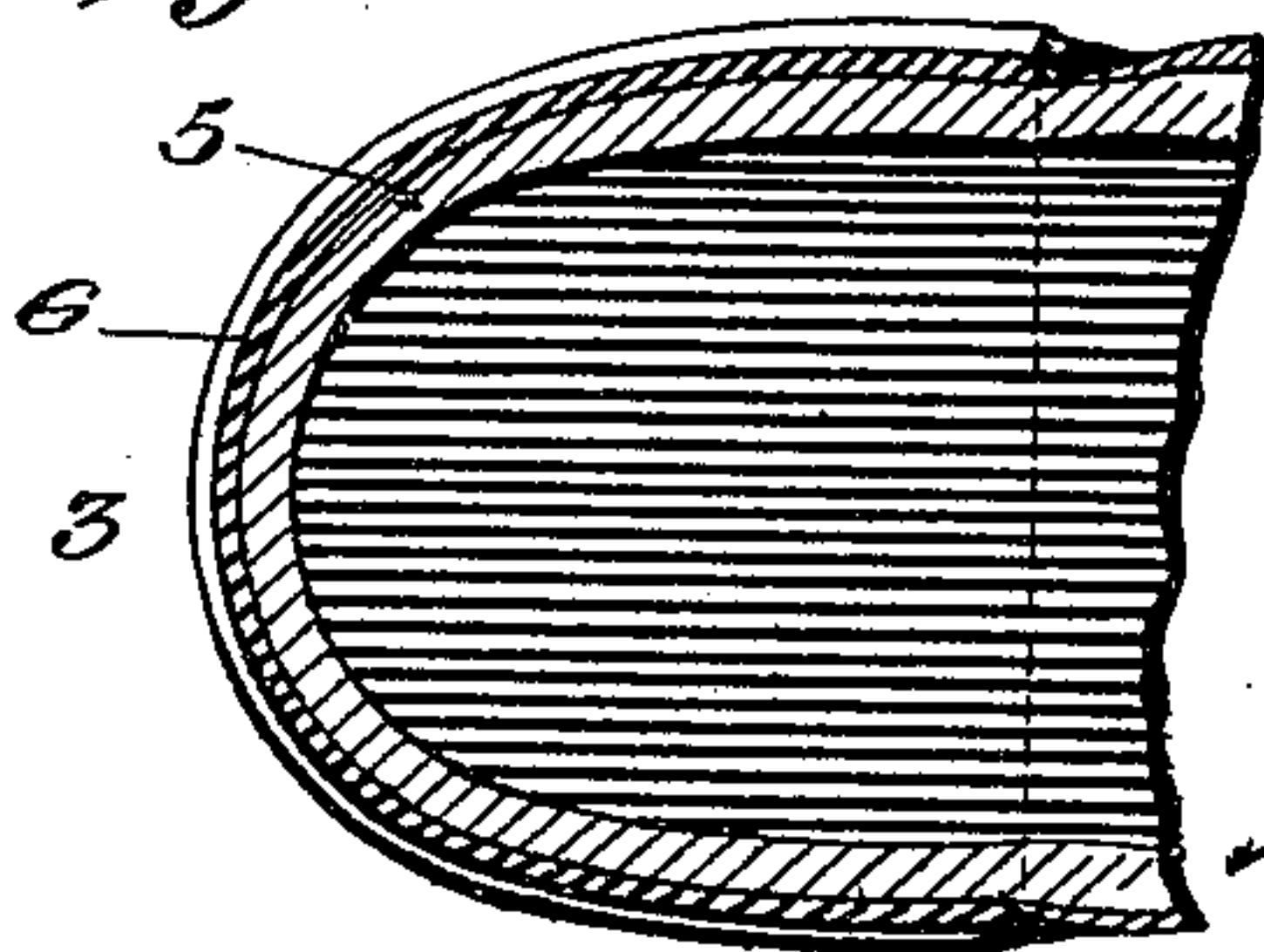


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS CROWLEY, OF LAMBERTVILLE, NEW JERSEY.

RUBBER BOOT.

SPECIFICATION forming part of Letters Patent No. 666,497, dated January 22, 1901.

Application filed April 11, 1900. Serial No. 12,464. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CROWLEY, a citizen of the United States, residing at Lambertville, in the county of Hunterdon and State of New Jersey, have invented new and useful Improvements in Rubber Boots and Shoes, of which the following is a specification.

My invention relates to rubber boots and shoes intended chiefly for miners' use, in which use the operatives are frequently required to work in a reclining or semireclining position with the heels of their foot-covering resting upon the ground.

Miners in their daily labor find it necessary very frequently to work while lying upon their backs or in a sitting position with their limbs outstretched and their heels resting upon the ground, which is uneven and often covered with loose coal, rock, or other mineral being mined. When in such position and moving their feet frequently, it has been found heretofore that the foot-covering, which is in the form of rubber boots or shoes, quickly wears out at the part which covers the counter above the heel of the boots or shoes, and it has long been the subject of study to provide a satisfactory rubber boot or shoe for miners' use which is not subject to the quick wear of this part of the boot or shoe, which when worn through renders the entire article practically useless, and, so far as I am aware, no sufficient remedy has heretofore been provided for this evil.

By my invention I provide a boot or shoe for miners' use possessing a satisfactory guard to protect the counter-covering of the boot or shoe and itself sustain the wear, which guard is a part of the heel proper of the boot or shoe and is constructed of solid rubber, which will sustain the hard wear to which miners subject the boot or shoe and materially prolong the life of the article. This is a consideration greatly desired and of the utmost benefit to miners, whose compensation is meager and who are unable to frequently purchase the essential rubber boots or shoes. This has been a hardship which they have had to undergo by reason of boots or shoes as heretofore constructed lacking a sufficient and proper guard to protect the counter-covering portion of the boot or shoe.

To the ends stated, my invention consists

in a boot or shoe constructed as hereinafter fully described and then particularly pointed out and described in the clauses of the claim. 55

To enable others skilled in the art to make and use my said invention, I will now describe the same in detail, reference being had for this purpose to the accompanying drawings, in which— 60

Figure 1 is a perspective view of a boot or shoe constructed in accordance with my invention. Fig. 2 is a partial view of a boot or shoe constructed in accordance with my invention, partly in elevation and partly in section; and Fig. 3 is a horizontal sectional view on the line 3 3 of Fig. 2. 65

In the said drawings the reference-numeral 1 indicates a boot, the entire upper of which, including the vamp 4, is of the ordinary or any usual known form. The boot is provided with a sole 2, to the rear portion 5 of which is secured by cementation, vulcanization, or otherwise a solid-rubber heel 3, which is thus practically an integral part of the sole. 70 For the purpose of protecting that part of the upper of the boot or shoe which covers the counter 5 from quickly wearing out in miners' use, as before described, I form the said heel of greater transverse and longitudinal diameter along the line of the bottom of the seat provided in said heel for the reception of the counter part of the upper to provide a continuous solid-rubber wear-resisting ridge 3^a, which when the boot or shoe counter is fitted in the heel-seat stands outside of the side and rear line of the counter, whereby the latter is protected from quickly wearing out with the kicking about of the miner, and the wear is taken and sustained by the ridge. In thus forming my improved hardened solid-rubber heel the tread-surface thereof is not unduly enlarged, so as to be uncomfortably weighty, and, furthermore, the rear sustaining-ridge is formed without an appreciable increase in the amount of material composing the heel, and therefore without an appreciable increase in the cost of manufacture. The heel is further secured to the boot or shoe by means of an upwardly-extending marginal extension-piece 6, which is also of rubber, preferably vulcanized to the proper point to enable it to sustain hard service and which is thinned out to its upper edge, where it merges into the line of the 75 80 85 90 95 100

counter-covering of the boot or shoe and joins the counter-covering in a smooth flush joint, presenting no projecting point liable to be caught by loose pieces of mineral, whereby
 5 it might be torn from its cemented or vulcanized connection with the upper of the boot or shoe and result in the severance of the heel to the material injury or destruction of the boot or shoe.

10 It is found in actual practice that a boot or shoe constructed in accordance with my invention materially increases the useful life of the article as compared with those commonly in use, the latter being open to the serious objection hereinbefore specifically pointed out.

15 As will be seen, the improved heel is made up of a solid-rubber lower portion with its upper portion constituting an extension-flange, by which the heel is cemented to the boot or shoe and which heel converges from the tread-surface thereof and from the upper edge of the extension-flange to the line of the bottom of the heel-seat to receive its counter portion of the boot or shoe, whereby there is provided
 20 along the line mentioned the wear-resisting ridge, as described.

Having thus described my invention, what I claim is—

1. The herein-described rubber boot or shoe
 30 provided with a heel having a seat for the counter of the boot or shoe, and formed with an upwardly-extending marginal extension-piece, said heel of greater transverse and longitudinal diameter along the line of the bottom of said seat than at the tread-surface of the heel, to provide a continuous solid-rubber
 35 side and rear wear-resisting ridge, which, when the boot or shoe counter is fitted in the heel-seat, stands outside of the side and rear

line of the counter, whereby the latter is protected and the wear sustained by the ridge, substantially as described. 40

2. The herein-described rubber boot or shoe provided with a sole provided with a heel having a seat for the counter of the boot or shoe, and formed with an upwardly-extending marginal extension-piece which tapers to a thin edge at its top, said heel of greater transverse and longitudinal diameter along the line of the bottom of said seat than at the tread-surface of the heel, to provide a continuous rubber side and rear wear-resisting ridge, all so arranged that when the boot or shoe counter is fitted in the heel-seat the ridge stands outside the side and rear line of the counter, and the extension-piece merges into the line of the counter at its top edge, whereby said counter is protected and the wear sustained by the ridge, substantially as described. 50 55

3. In a rubber boot or shoe, a heel, the lower portion of which is composed of solid rubber, and the upper part of which constitutes an integral marginal extension-flange by which the heel is secured to the boot or shoe, said heel converging from its tread-surface and from the upper edge of its flange to a line along the bottom of the seat for the boot or shoe counter, constituting along that line a solid-rubber wear-resisting ridge, substantially as described. 60 65 70

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS CROWLEY.

Witnesses:

HERVEY S. HOLCOMBE,
 ALFRED S. GOODFELLOW.