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CHARLES H. EGGLESTON.

Heels of Boots and Shoes.

No. 122,112.

Patented Dec. 26, 1871.

Fig 1.

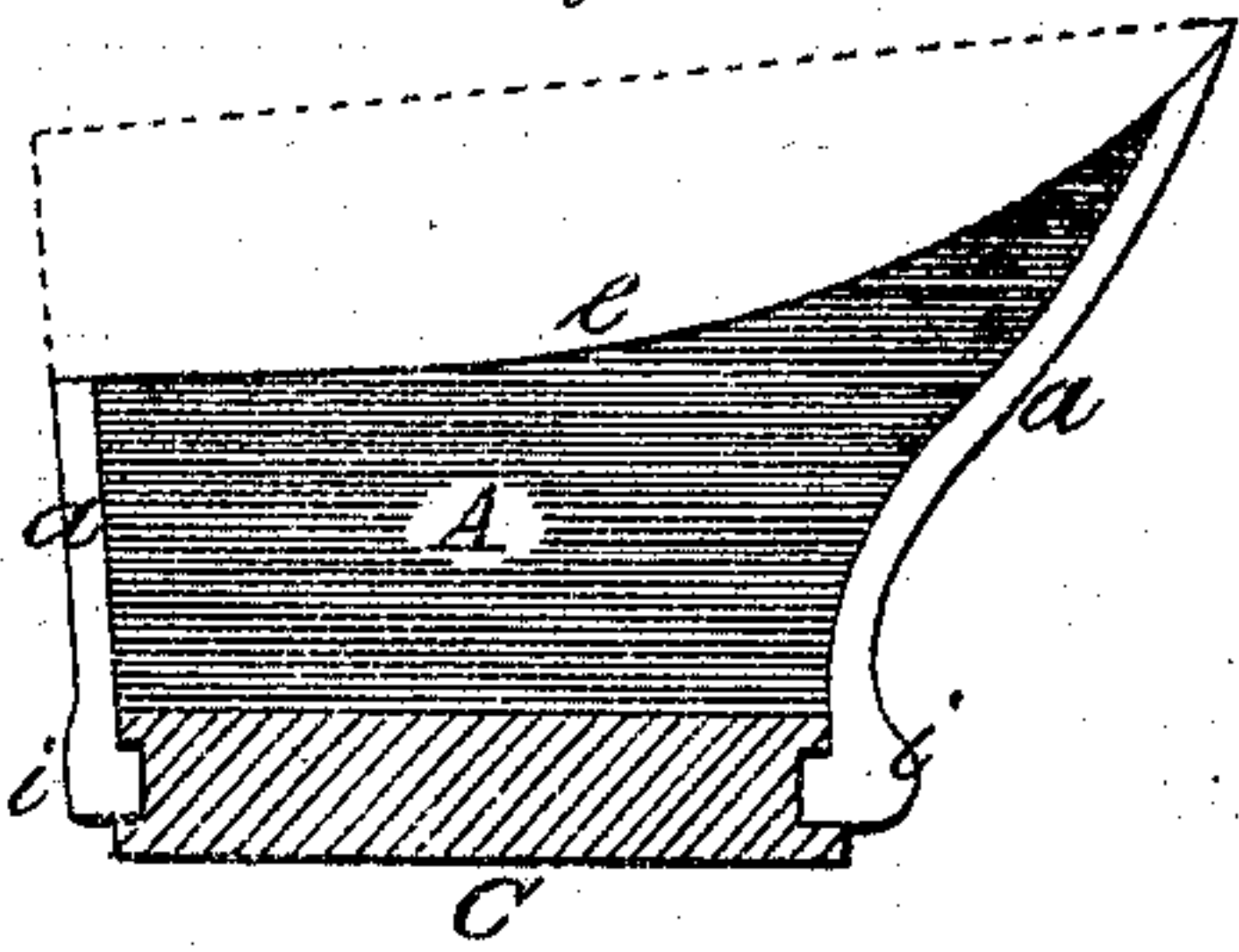


Fig 2.

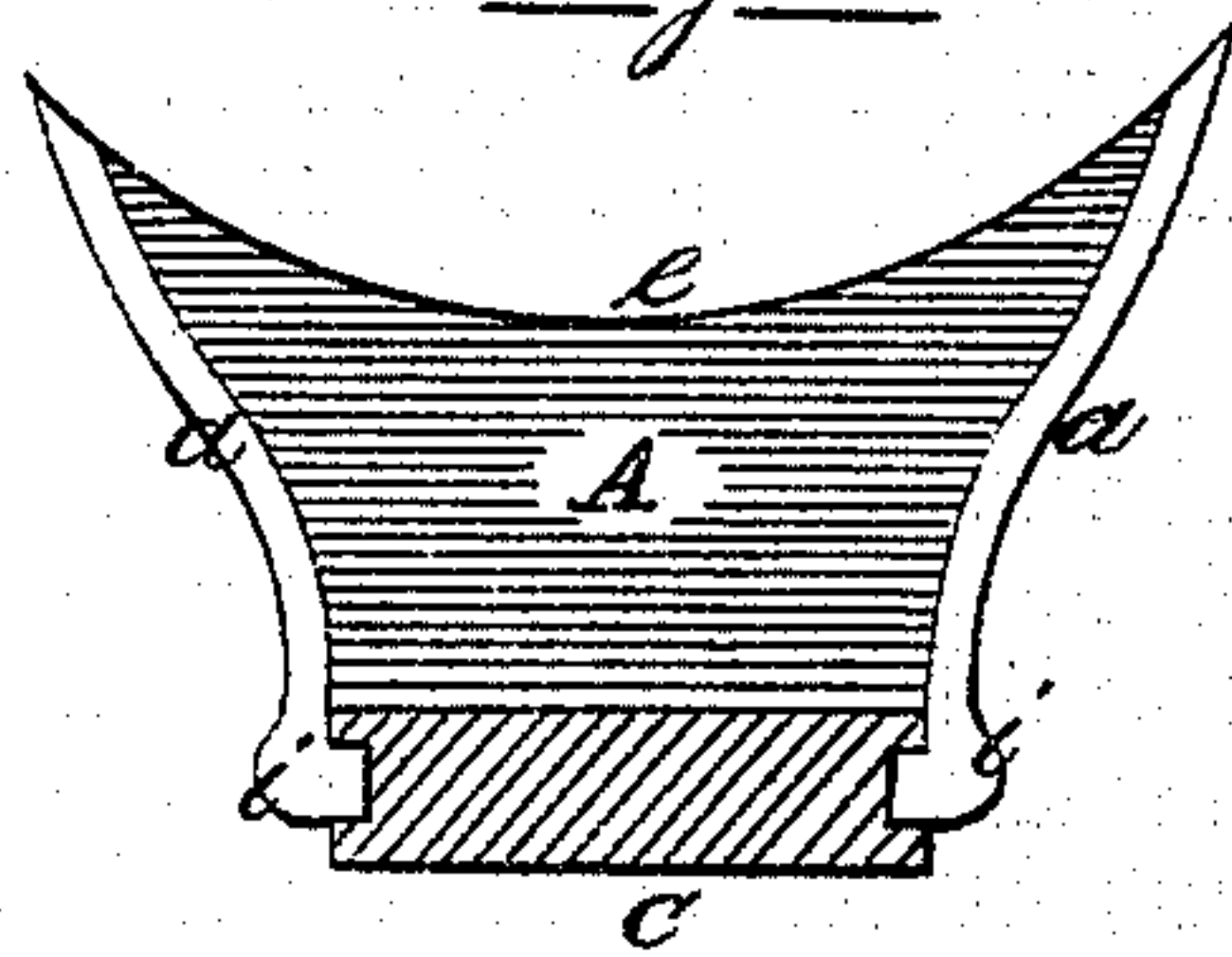


Fig 3.

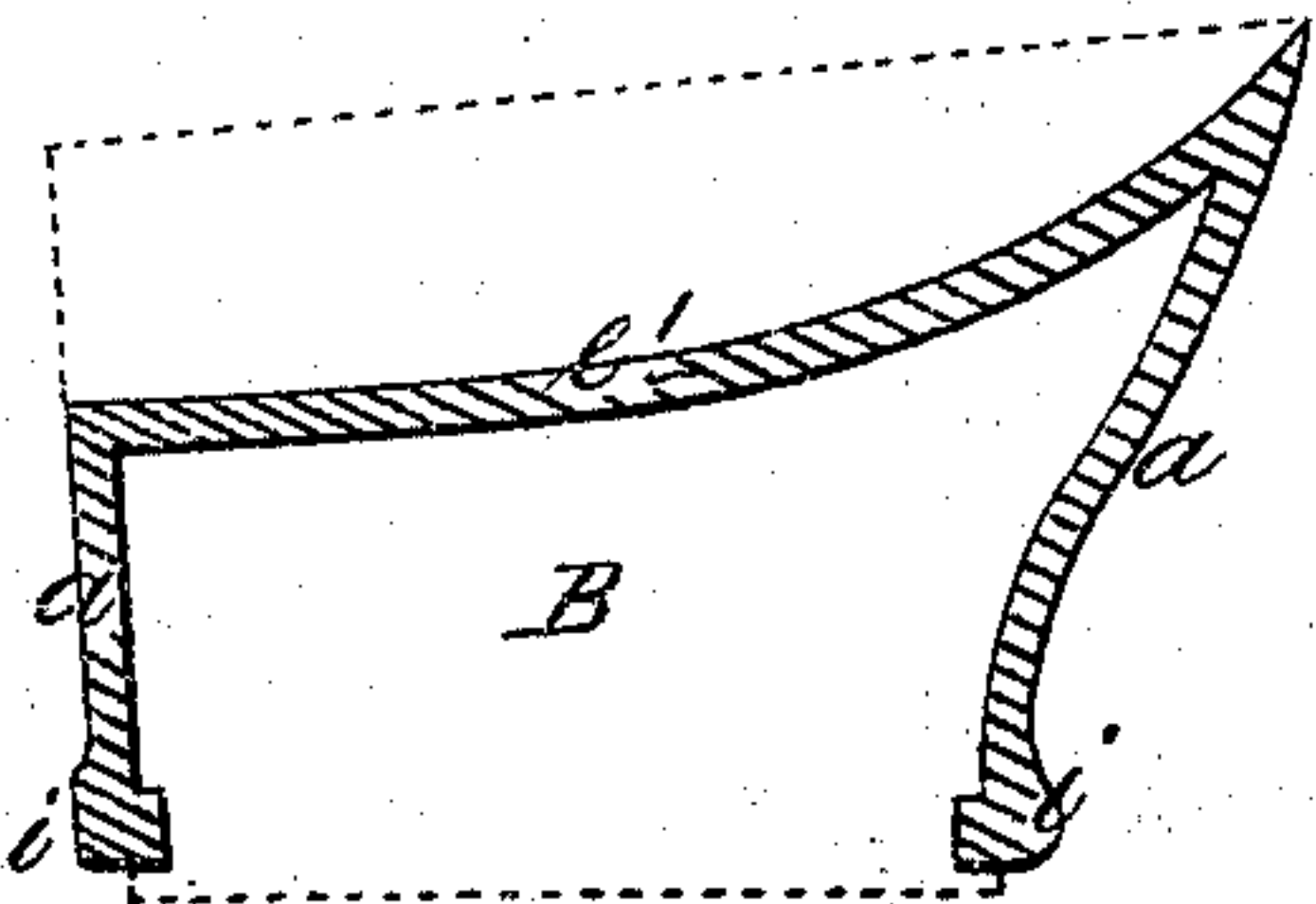
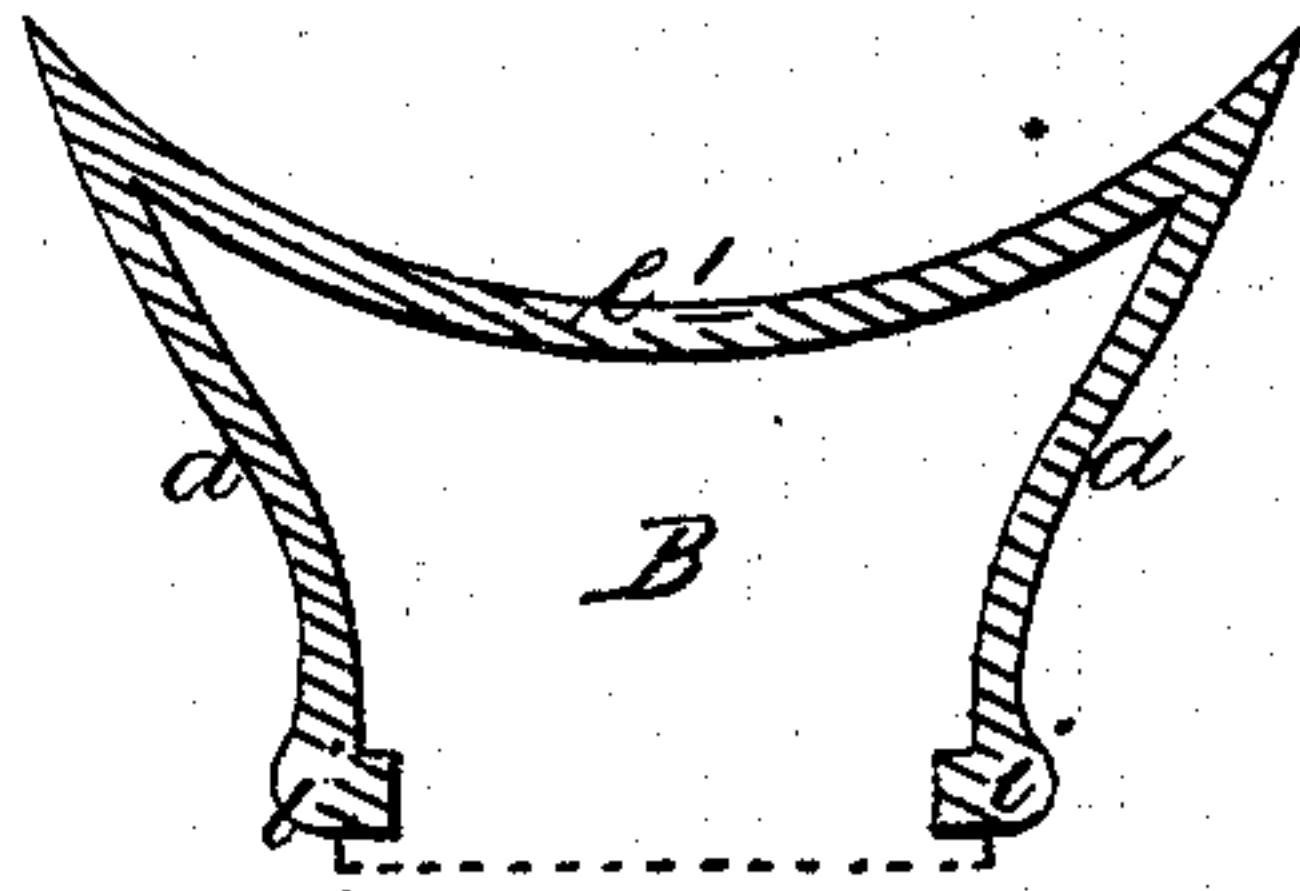


Fig 4.



Attest.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 122,112, dated December 26, 1871.

I, CHARLES H. EGGLESTON, of the city of Marshall, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in the Manufacture of Heels for Boots and Shoes, of which the following is a specification:

My invention relates to a new and improved mode of manufacturing the heels of boots and shoes, by constructing them with molded shells of rubber, vulcanized to the proper degree of hardness, and exteriorly polished, as will be hereinafter more fully described, reference being had to the accompanying drawing, in which, full size—

Figure 1 is a vertical longitudinal section of a lady's shoe, the rubber shell being molded and vulcanized on the filling. Fig. 2 is a cross-section of the same. Fig. 3 is a section like Fig. 1, but showing the heel as it appears when molded on a core-die, and the die removed to form a matrix. Fig. 4 is a cross-section of the same.

To enable those skilled in the art to make and use my invention, I will now proceed to describe the same; and I will say here that my object in partially incasing the heel with smooth hard rubber is to produce a heel that cannot be readily torn or marred by wear or accident; will possess great durability; and be susceptible of such a brilliant permanent polish and of such close texture as to resist the action of water and prevent adhesion of mud and snow.

My invention consists in subjecting the rubber to the vulcanizing process in contact with the body of the heel, shown at A in Figs. 1 and 2. The heel-body may be of wood, or any material that will stand the requisite heat and is otherwise suitable; and it is first shaped to the required size and style, as its use or fashion may dictate, with a concavity, *e*, shaped in the upper side to fit the proper convexity of the sole of the shoe. A strip of prepared soft rubber is then placed around the edge of the heel-body and both are placed within suitable die-molds and subjected to compression until the rubber is fairly molded, and it is then vulcanized by the usual heating process. When

the heel is taken from the mold it will be veneered in a solid and permanent manner around the edge *a* with the hard rubber in nearly or quite a finished state, according to the smoothness of the die-mold. In the heel exhibited by Figs. 3 and 4 the edge shell *a* is molded with an upper seat-shell of hard rubber, as shown at *e'*, in the concavity of which the sole rests, and which forms a basis of attachment to said sole by means of screws or other suitable means. The recess in the shell at B may be filled with felting or other desirable and proper material. In either mode of construction provision should be made for the attachment of a bottom layer for the heel tread, which layer should project below the bottom edge of the hard rubber shell; be capable of renewal when too much worn; and consist of leather, softish rubber, or other substance more or less elastic. C represents an elastic layer seated in a shallow recess, the edges being sprung into an inner ridge in the shell, and, if necessary, tacked to the heel-body; or, in place of this mode, the body or filling of the heel may extend to the bottom of the shell and the tread layer attached outside; but in either way I find it best to form a molded projection, as at *i*, along the lower edge of the shell, as it is not only ornamental, but serves as a re-enforcer. Excepting as to mere form, boot-heels may be constructed substantially as herein described for ladies' shoes or slippers.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

1. The described process of veneering a shaped heel with hard rubber by placing soft rubber about the same, compressing it into the desired shape by suitable dies, and hardening by subjection to the usual vulcanizing process.

2. As a new article of manufacture, a shaped heel veneered with hard rubber in the manner described.

CHARLES H. EGGLESTON.

Witnesses:

OTTO L. JOHNSON,  
C. T. COOK.

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