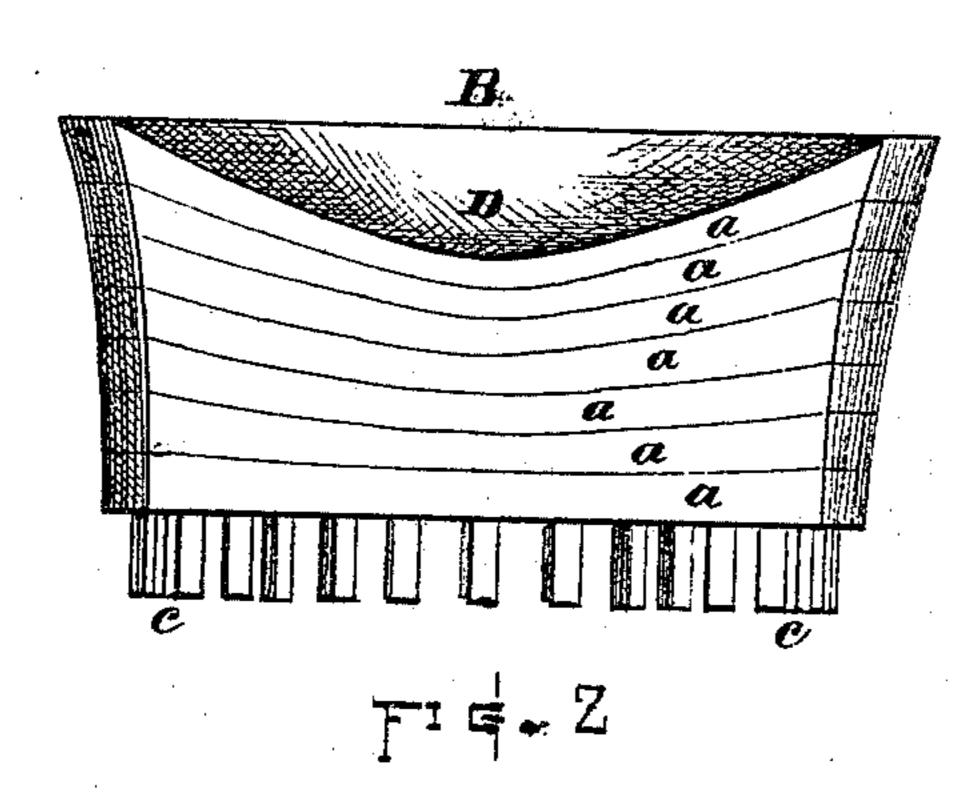
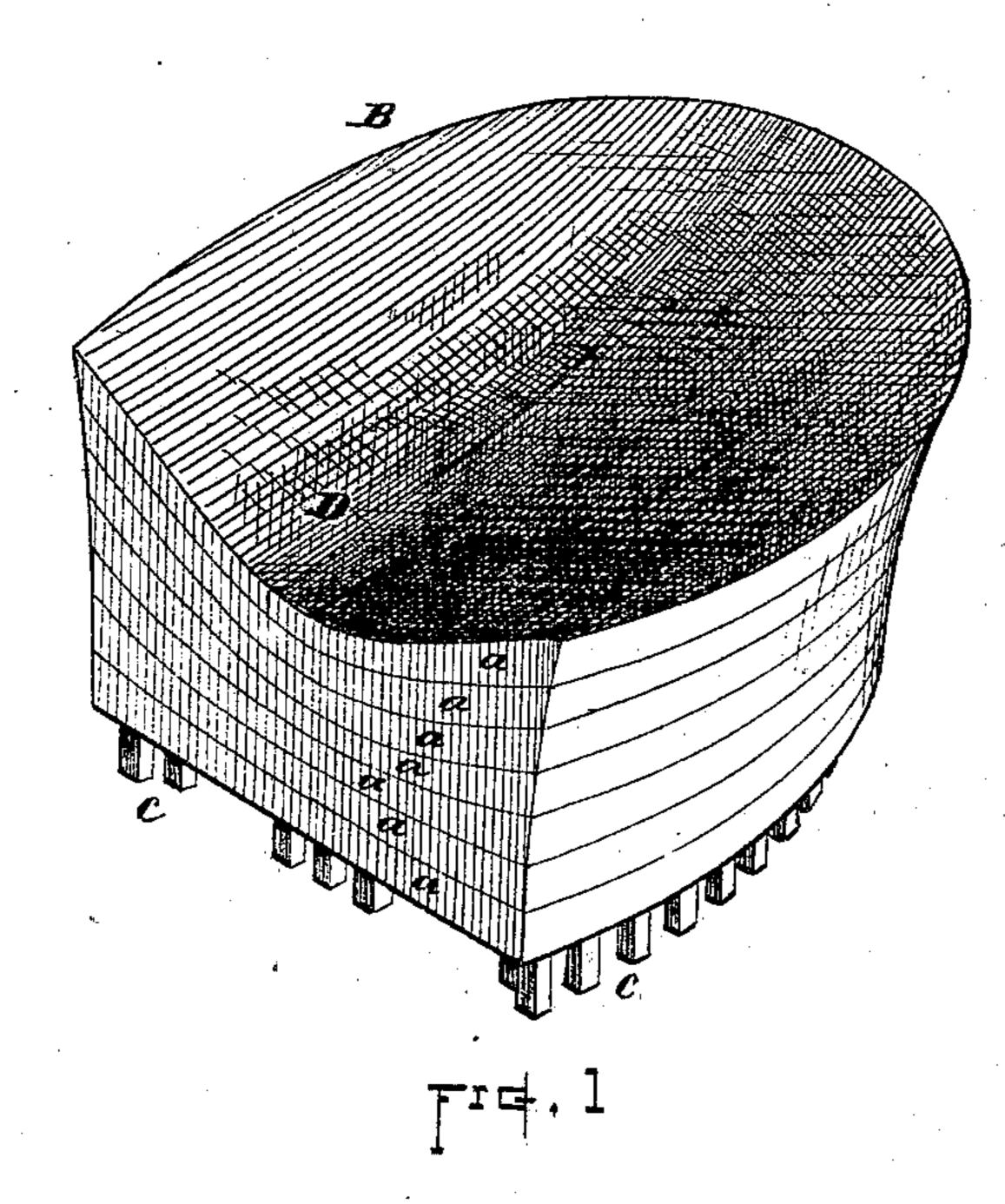
Horace H.Bigelow's Improvement in Heels

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PATENTED JUN 27 1871





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Horace Al. Bigelow

UNITED STATES PATENT OFFICE.

HORACE H. BIGELOW, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 116,400, dated June 27, 1871.

To all whom it may concern:

Be it known that I, Horace H. Bigelow, of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Heels for Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, in which—

Figure 1 represents a perspective view of my improved heel, and Fig. 2 represents a front view

of the same.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The object of my invention is to produce a leather heel for boots and shoes which can be applied to the boot or shoe without using a rand, or without cutting away the leather of the sole

or heel, as heretofore practiced.

My invention consists in a peculiarly-constructed heel for boots and shoes, as herein described. My improved heel is formed in this instance of a series of leather lift-pieces, a, of which a sufficient number is employed to make the heel of the required height. The lifts a are slightly tacked together, and the top of the heel is then subjected to pressure, by means of a suitable die, to give it the required concave form. That portion of the die which forms the upper side B of the heel is made of the same shape as the rear part of the sole of the boot or shoe to which the heel is to be attached, and consequently that part of the heel will be formed with a concavity, D, or

hollowed out as shown, so that it will accurately fit the sole without the necessity of using a rand, thus saving much labor, expense, and time in making and attaching the rands. The heel is compressed upon all sides at one time, and nails inserted and partially driven, while the heel is thus subjected to pressure, substantially in the manner described in Letters Patent granted to me on the 5th day of July, 1870.

It will be understood that, when the heels are applied to the boot or shoe, the nails are driven through the heel into the soles thereof for retaining the heel in position, which operation may be performed either by hand or by machinery.

This invention is applicable to heels formed from whole lifting, or from lifting composed of pieces, or heels of other leather or fibrous materials.

Having described my improvement in heels for boots and shoes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. A boot or shoe heel having a concavity formed upon its upper side by means of pressure, while, at the same time, the sides and bottom of the heel are retained in position by suitable pressure-dies, as stated.

2. A boot or shoe heel in which a concavity, D, is formed in its upper side, and the nails C partially inserted, while the sides of the heel are subjected to pressure, substantially as described.

HORACE H. BIGELOW.

Witnesses:

THOS. H. DODGE, A. E. PEIRCE.