L. DAROZIR & L. DION.

Heel-Rand Slabs.

No. 220,223. Patented Oct. 7, 1879.

Fig: 1.

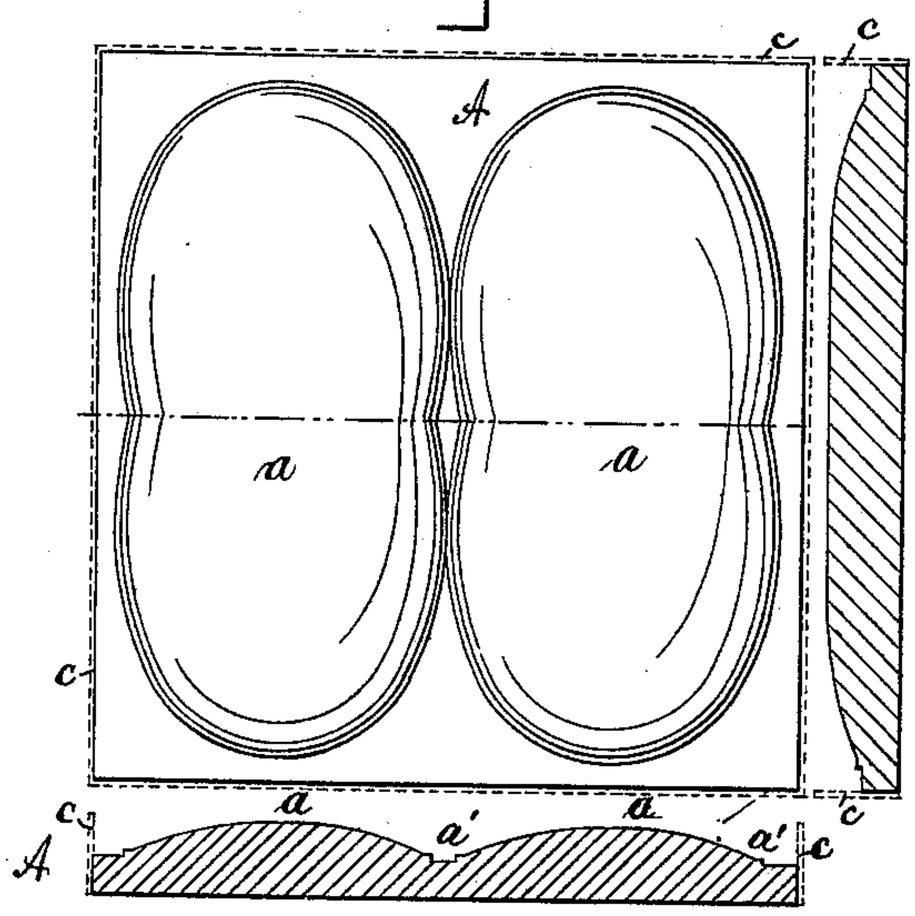

Fig: 2.

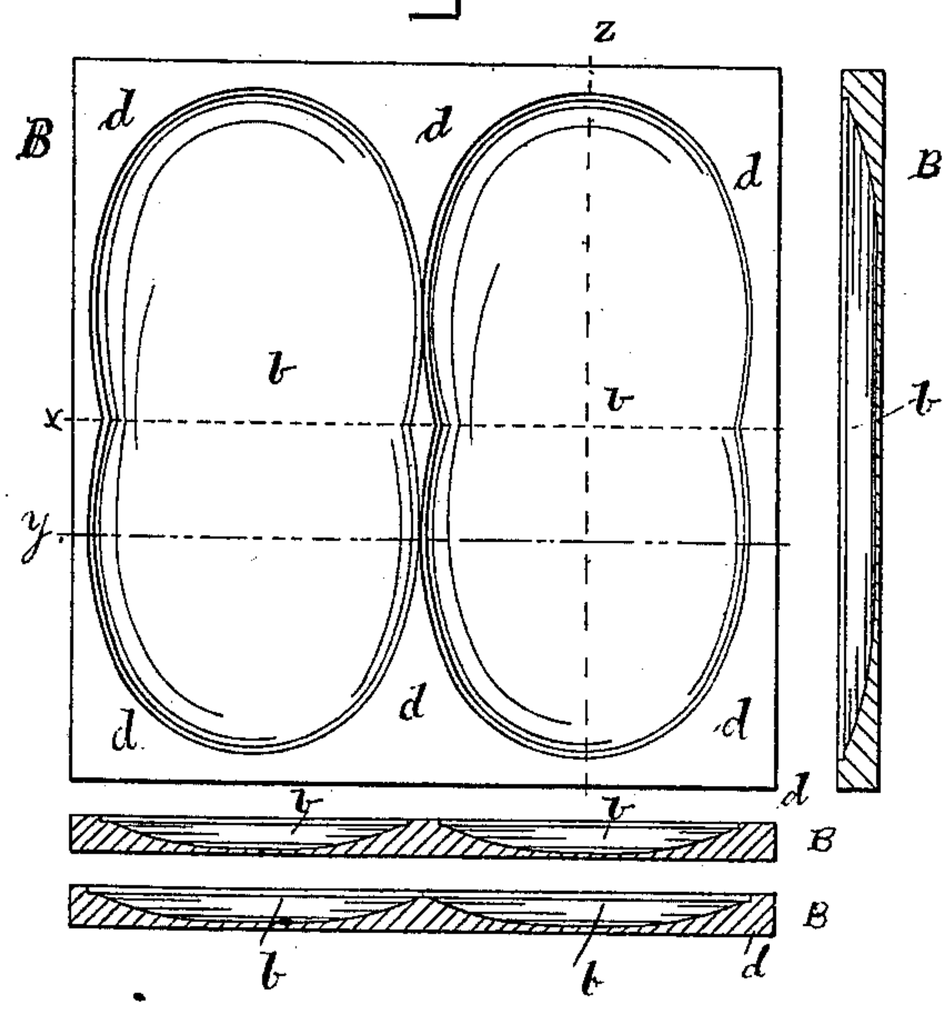

Fig. 5.

Fig. 3.

Fig. 4.

Witnesses.

Lawrence F. Connor.

Jeremiah T. Crowley

Inventors

Levi Darozir and Leon Dion

by Crosby & Gregory

Attys

UNITED STATES PATENT OFFICE.

LEVI DAROZIR AND LÉON DION, OF NATICK, MASSACHUSETTS.

IMPROVEMENT IN HEEL-RAND SLABS.

Specification forming part of Letters Patent No. **220,223**, dated October 7, 1879; application filed June 6, 1879.

To all whom it may concern:

Be it known that we, LEVI DAROZIR and LÉON DION, both of Natick, county of Middlesex, State of Massachusetts, have invented an Improvement in Molded Heel-Rand Slabs and Heel-Rands, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to a heel-rand slab.

Our invention consists in a molded heel-rand slab composed of artificial leather or other pulpy material, it having at its face one or more heel-seat concavities, as hereinafter described.

It is now well known that a mixture of leather skivings, torn or shredded and mixed with paste, is molded between molds into slabs about one foot long and one foot wide, the slabs being thick enough to make an inner or filling sole or to serve as a substitute for sole-leather in any suitable place. This material is known to the trade as "pan-cake." It is also well known that in the manufacture of boots and shoes a heel-rand is always interposed between the top of the heel and the heel of the lasted shoe. This rand is most commonly made by bending a strip of skived sole-leather into a shape to conform substantially with the outline of the heel. It has also been proposed to put together in a heel-shaped mold, with paste, pieces of waste sole-leather left in the manufacture of boots and shoes, and mold such waste leather directly into heel shape, the face of one of the parts of the said heel-shaped mold being convexed, to slightly concave one end of the heel to form a heel-seat, and obviate the employment of a separate rand-piece.

The object of our invention is to form from this so-called "pan-cake" material, or other moldable pulpy material containing more or less leather, (material commonly employed in connection with leather, as a substitute for it,) a heel-rand slab, it having upon its face one or more concavities, each one being suitable to receive within it, when cut out from the said slab, the heel of the lasted boot or shoe, said portions so cut from the slab serving for the usual heel-rand. By molding these heel-rands in slab form that portion of the material composing the slab which is directly acted upon by the convexed portion of the die is firmly compressed, and the so-called "flash" of the said slab, subsequently cut away, leaves the rand with a solid compact edge, which may be burnished or treated as leather.

Figure 1 represents, in face view and in longitudinal and cross section, a die such as we propose to employ in the manufacture of our heel-rand slab or heel-rand pan-cake; Fig. 2, a top view of one of our molded heel-rand slabs or pan-cakes with depressions to form four heel-rands or seats; Fig. 3, a section on the line *x;* Fig. 4, a section on the line *y*, and Fig. 5 a longitudinal section on the line Z.

In the manufacture of our heel-rand slab we propose to use skivings and paste, preferably such a compound as is mentioned in United States Patent No. 170,962, dated December 14, 1875.

Our mold A, to be provided with side pieces, *c*, (shown in dotted lines,) has its bottom convexed, as at *a*, and each side the convexed portion are depressed parts *a'*, into which the material may be filled, so that the said material, subjected to pressure in the said mold by a flat-faced follower, will be pressed or compacted with equal force, leaving the heel-rand slab of equal density. This plan makes a more uniform and better heel-rand than would be the case if the material were placed in a mold or box having a plain surface and the follower descending upon it had convexed portions and was obliged to enter and displace a portion of the material laterally.

The slab B produced in this mold has upon its face two long concavities, *b b*, more or less deep, according to the desired thickness for the rand-forming portion or top of the heel, the opposite face of the slab being substantially flat; and next to and surrounding the concave portions the slab is left thick, to form the extra thickness required for the outer portion of the rand. This slab so molded is ready for sale to shoe-makers, who will cut it on the line *x* and longitudinally between the heel-seat depressions *b b*, thereby forming four heel-rand portions. Trimming away a portion of the waste *d* of the slab connected with the rand-forming portions leaves the completed heel-rands, they having solid compact thick edges, free from flaws, holes, and folded or curved pieces of skivings, as would be frequent if the skivings and paste should be placed in small

quantities in a mold of just the shape of a heel or heel-rand.

It will be obvious that the heel-rand, owing to the shape of the face of the bottom of the mold, as at *a a'*, will be of substantially the same density, the thickness of the outer edges of the rand being derived from the depth of the most depressed portions *a'* of the mold, more stock being added and required at that point, whereas in all other heels which have been subjected to pressure of a descending die having a convexed face, it acting upon material of even or uniform thickness, the said descending die has been obliged to compress and at the same time move a part of the material laterally in order to have left in it a concave, and such a process would harden a heel more at its center than at its edge.

We claim—

As an improved article of manufacture, a heel-rand slab composed of artificial leather molded to contain two or more heel-seat cavities, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

LEVI DAROZIR.
LÉON DION.

Witnesses:
G. W. GREGORY,
N. E. WHITNEY.