(No Model.)

E. J. LE GAY.

HEEL MOLD.

No. 382,888. Patented May 15, 1888.

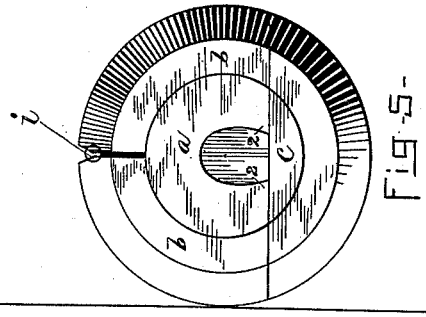

Fig. 5.

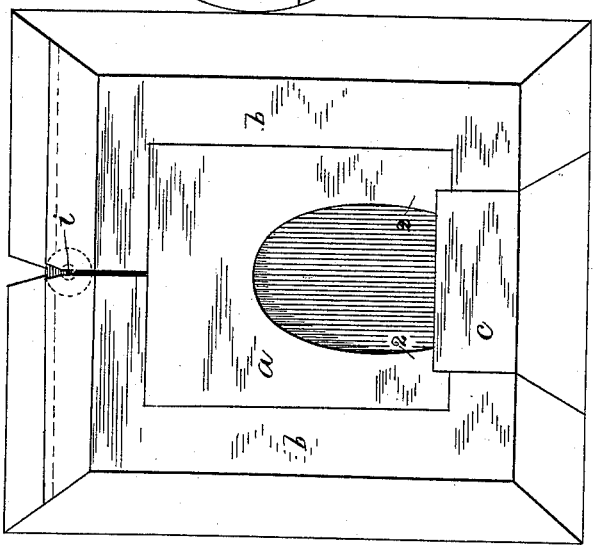

Fig. 2.

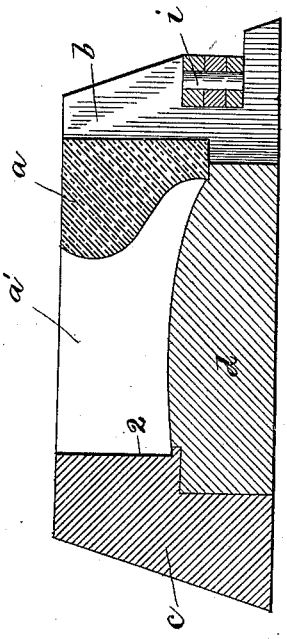

Fig. 3.

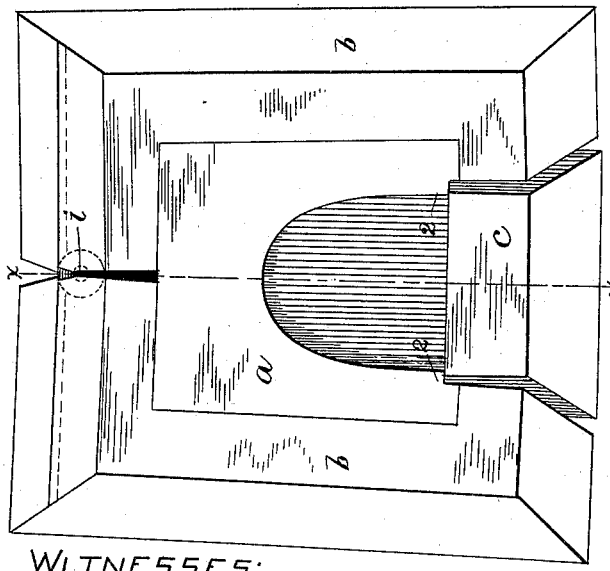

Fig. 1.

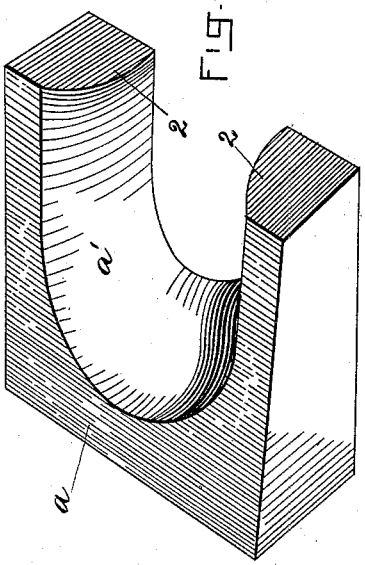

Fig. 4.

WITNESSES:
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UNITED STATES PATENT OFFICE.

EDWARD J. LE GAY, OF BOSTON, MASSACHUSETTS.

HEEL-MOLD.

SPECIFICATION forming part of Letters Patent No. 382,888, dated May 15, 1888.

Application filed January 18, 1888. Serial No. 261,076. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. LE GAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Heel-Molds, of which the following is a specification.

This invention has for its object to provide an improved mold adapted to press a covering of leather upon a core or body of wood or other suitable material, the inner surface of the leather being coated with a suitable cement, and caused thereby to adhere to the core when pressed against the latter by the mold.

The invention consists in a seamless mold of elastic material—as rubber—formed to fit the curved sides and rear portion of a heel, and constructed so that it normally opens to permit the easy removal of a completed heel, which is narrower at the breast than it is between the breast and rear end, and is capable of being compressed to fit the varying width of the heel, combined with rigid holders which contain said mold and exert compressing pressure upon it, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of my improved mold in its normal condition. Fig. 2 represents a similar view showing the mold compressed to fit a heel narrowed at the breast. Fig. 3 represents a section on line *x x*, Fig. 1. Fig. 4 represents a perspective view of the elastic mold removed from the holders. Fig. 5 represents a modification.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I make a mold, *a*, of a single block of rubber having a seamless surface, *a'*, formed to bear simultaneously on the rear and sides of a heel when said block is suitably compressed, as hereinafter described. The rubber block is cast or formed so that its arms or portions 2 2, that press the sides of the heel at the forward end of the latter, normally open, so that the space between them is as wide as the widest part of the heel or wider, said portions being capable of being pressed inwardly to conform to the narrowed front portion of a heel of ordinary form. The mold thus formed is secured to recessed metal blocks or holders *b b*, which are hinged together at *i*, so as to open and close, and are cut away or recessed at their inner sides to receive the mold. The outer sides of the blocks may be beveled or inclined, so that a clasp or band pressed upon said sides, as shown in my Patent No. 322,301, will force the blocks or holders toward each other, and thus compress the side portions, 2 2, of the mold and cause them to conform to the narrowed front portion of the heel, as shown in Fig. 2. When the compressing pressure is removed, the mold opens by its own elasticity, forcing the holders *b b* apart, as shown in Fig. 1, so that the heel can be readily removed from the mold.

A removable block, *c*, is employed, as in my above-mentioned patent, to press the front or breast of the heel, said block being placed in an opening formed for it in the hinged blocks *b b* and pressed against the breast of the heel by the means used to press the sides of the mold inwardly.

The form of the blocks *b b* and the means used for imparting pressure thereto may be variously modified. The blocks may present a circular instead of a rectangular exterior, as shown in Fig. 5, and any suitable means may be employed to exert pressure upon them.

In the operation of the mold a wooden heel-shaped core is placed upon the block or bed *d*, provided for the support of said core, and a piece of leather cut to the proper form and coated on its inner side with cement is placed on the core. The mold is then applied and compressed, as described, and presses the leather closely against the core. The elastic material of the mold enables it to conform to any inequalities that may exist in the thickness of the leather, while the integral character of the mold enables it not only to close and open at its forward end, so as to conform to the narrowed front portion of the heel and to permit the free removal of the heel, as already described, but also gives the mold a seamless pressing-surface, so that it leaves no mark on the exterior of the leather covering, as it would if the pressing-surface were made on two independent blocks separatd by a seam or joint.

I am aware that a seamless mold is shown in my former patent, No. 322,301, above referred to; but said mold was made of metal, and was not capable of opening and closing at

its forward portion, so that in practice it had to be made widest at its forward portion and could not conform to the sides of a heel which is narrowed at the breast. When it is considered that nearly all heels for ladies' boots and shoes are thus narrowed, the disadvantage of a rigid seamless mold will be apparent, it being necessary that the heel be capable of free removal from the mold by sliding out between the front ends thereof. I am also aware that the patent to Mitchell, No. 374,368, dated December 6, 1887, shows two blocks of rubber placed in hinged metal holders and formed to press the leather covering against the core; but said blocks are separated by a joint or seam which causes the formation of a burr or ridge on the rear portion of the leather covering. My invention is therefore distinguished from my former patent above mentioned, and from the Mitchell patent, in that the seamless pressing-surface is made on an integral elastic block or piece which is adapted to conform to a heel having a narrowed front and automatically opens to free the heel.

I claim—

In a heel-mold, the combination, with the separable rigid holders, of the integral elastic piece held thereby, having a seamless molded surface normally more widely opened at its forward than at its rear end, and adapted to be compressed at such forward end to form the narrower front portion of the heel, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of January, A. D. 1888.

EDWARD J. LE GAY.

Witnesses:
C. F. BROWN,
A. D. HARRISON.