

No. 794,002.

PATENTED JULY 4, 1905.

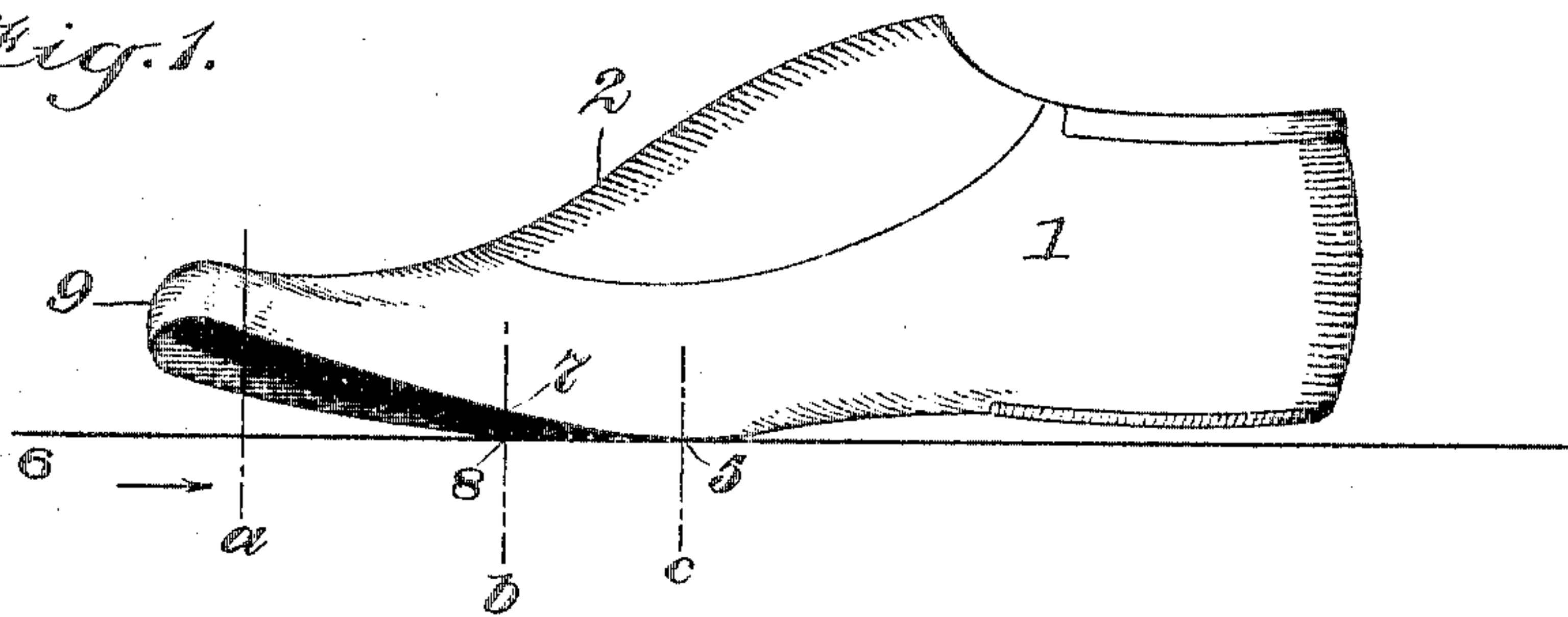
A. R. GARROD.

SHOE LAST.

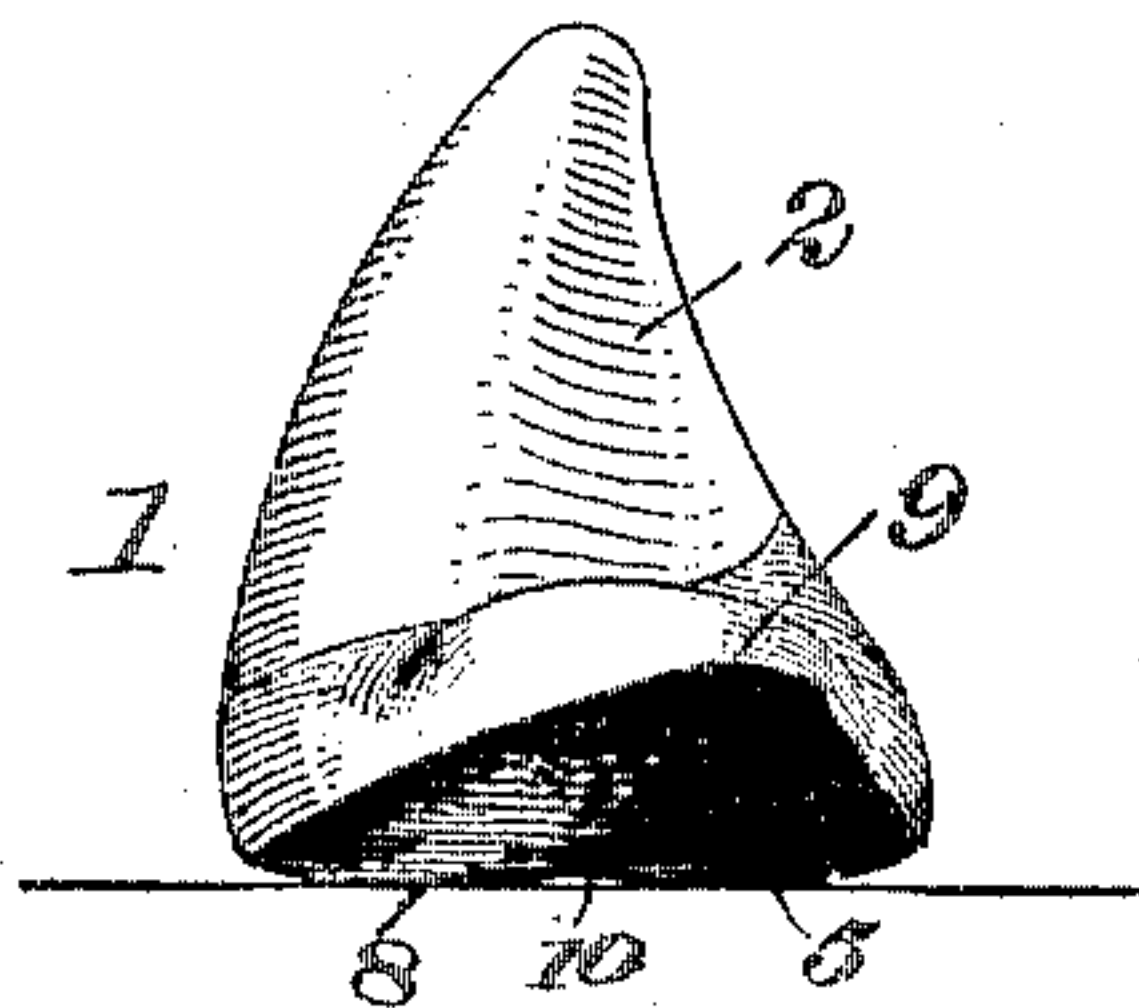
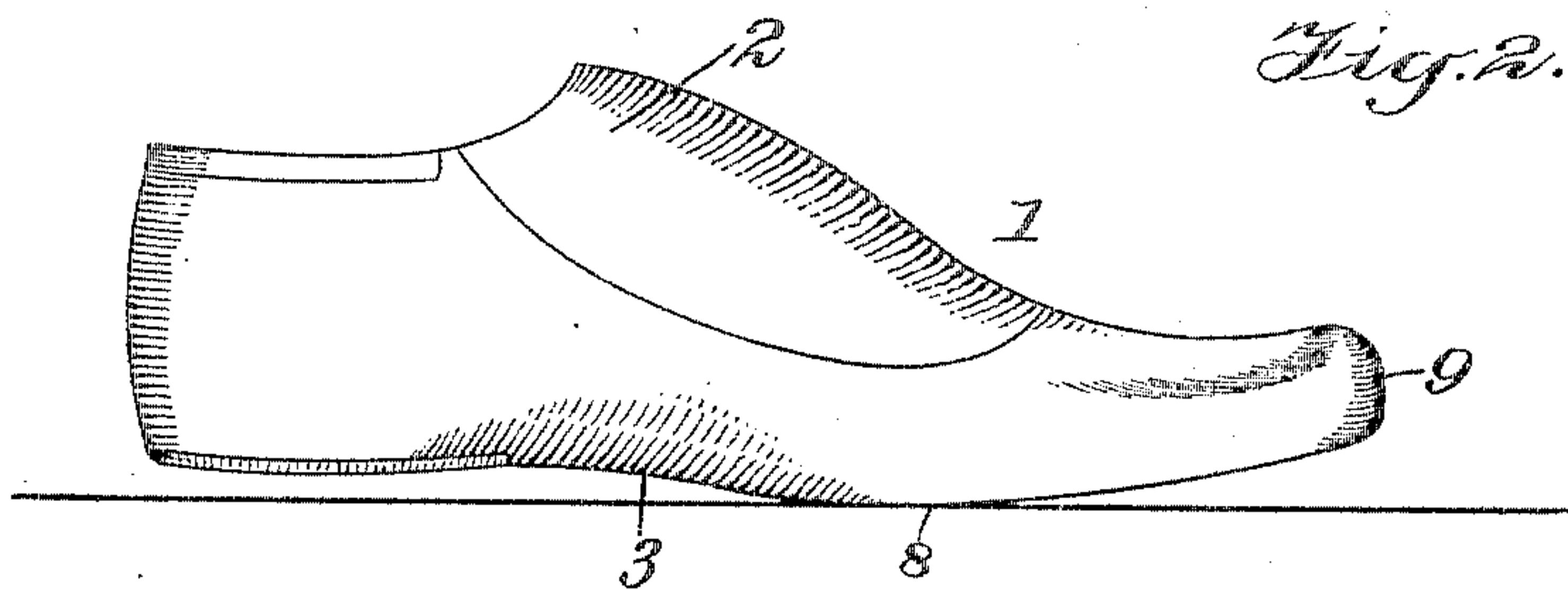
APPLICATION FILED MAR. 10, 1904.

MODEL.

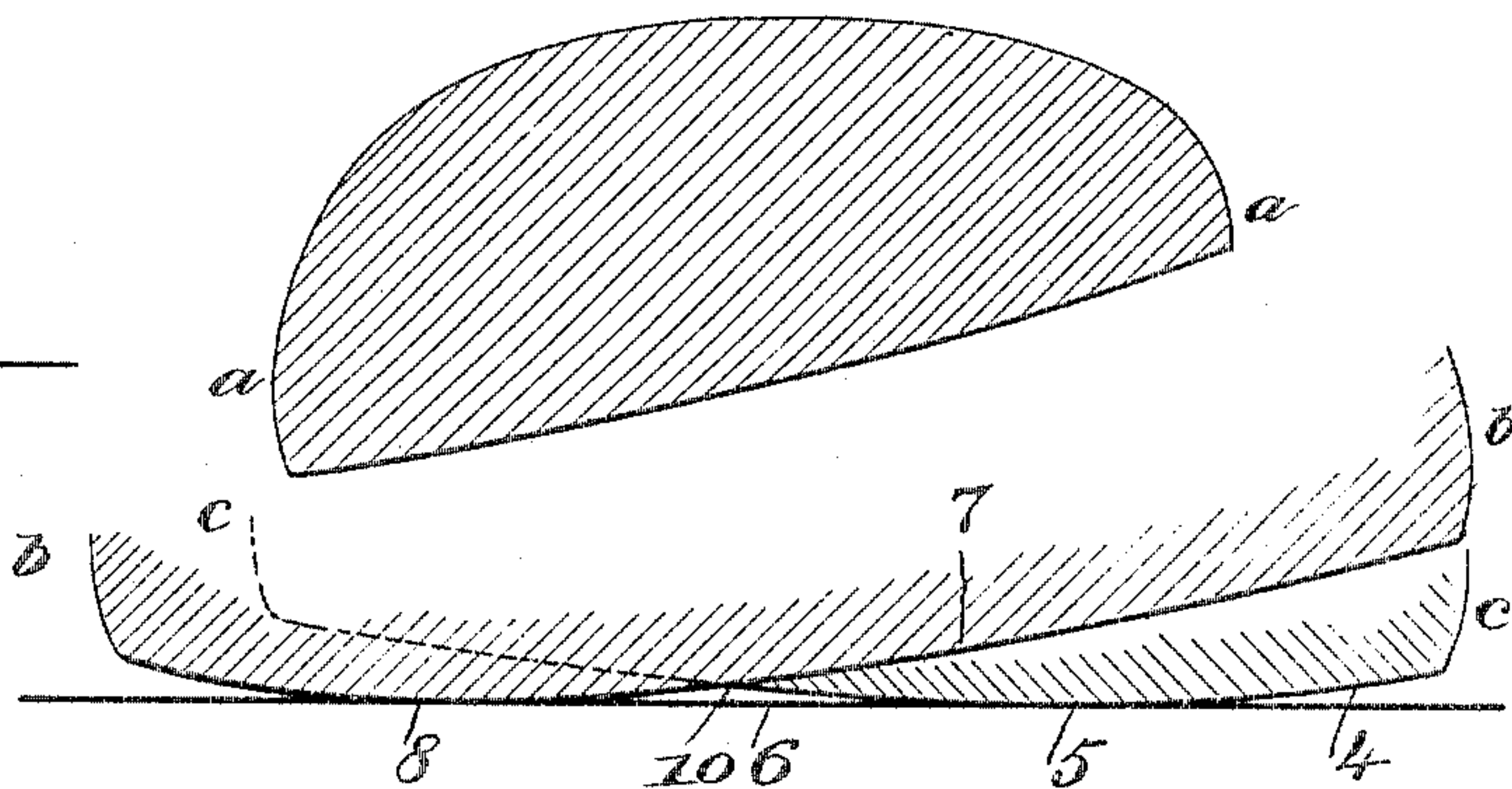
*Fig. 1.*



*Fig. 2.*

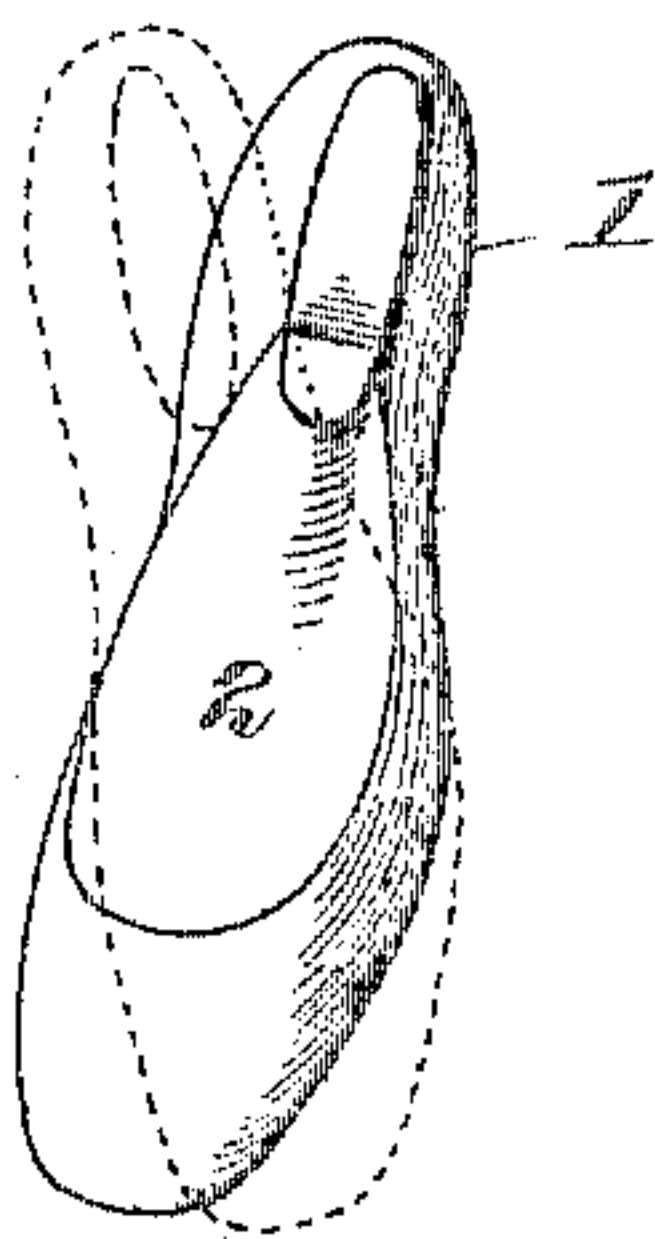


*Fig. 3.*



*Fig. 4.*

*Fig. 5.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALBERT R. GARROD, OF NEW YORK, N. Y.

## SHOE-LAST.

SPECIFICATION forming part of Letters Patent No. 794,002, dated July 4, 1905.

Application filed March 10, 1904. Serial No. 197,409. (Model.)

*To all whom it may concern:*

Be it known that I, ALBERT R. GARROD, a citizen of the United States, and a resident of the city of New York, Flatbush, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Shoe-Last, of which the following is a full, clear, and exact description.

This invention relates to shoe-lasts; and it consists, substantially, in the improvements pointed out in the accompanying claims, a particular embodiment of which is described in the specification and illustrated in the accompanying drawings.

The principal object of the invention is to provide a shoe-last of a construction by which to impart to the tread or under surface of the sole of a shoe made thereon a curvature or form tending to turn the foot of the wearer of the shoe in an outward direction in the act of walking.

The above and additional objects may be attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view showing the outside of a shoe-last for the left foot embodying my improvements. Fig. 2 is a similar view looking at the same last from the opposite side to that shown in the preceding figure. Fig. 3 is an end view of the same last looking at it from the left in Fig. 1. Fig. 4 is an enlarged view taken in section on the lines *a*, *b*, and *c*, respectively, of Fig. 1 and showing diagrammatically the operation of the tread or under surface of the sole of a shoe made upon my improved last; and Fig. 5 is a small top plan view of the left last, the dotted lines indicating the outward direction in which the foot of the wearer of a shoe made thereon is caused to turn in walking.

As is well known, the natural tendency of one or both feet of many persons is to turn inwardly on striking the ground in walking, this being especially true in the case of children, due to some physical weakness of the foot or ankle or else to lack of thought on the part of the child or neglect of training on the

part of the parent, and, as hereinbefore suggested, it is the purpose of the present invention to provide a last for imparting such qualities to the sole of a shoe made thereon as to overcome the tendency referred to.

Specific reference being had to the drawings by the designating characters marked thereon, 1 represents my improved last in entirety and which, as shown, is designed for the formation of a shoe to fit the left foot of the wearer. The upper structure 2 of the last may be of any desired form to correspond with the particular shape of the "upper" of the shoe to be made thereon, while the base thereof forwardly of the shank 3 of the last is given a shape for accomplishing the above-mentioned objects. At substantially the region indicated by the line *c* in Fig. 1 the bottom of the last, and consequently the bottom of the shoe, has a curved surface portion 4 extending between the outside points, (marked *c c* in Fig. 4,) to which an imaginary base plane 6 is tangent at the point 5, which is located near one side of the last. This curved portion extends upwardly in both directions outwardly from the point 5 and also rises toward the toe on the outside of the last, but on the inside extends downwardly again until it emerges with a reversely-sloped surface portion 7 extending between the points marked *b b* in Fig. 4 and touching said base plane at the point 8. Finally the curved bottom surface slopes gradually upward and outwardly to the line *a* in Fig. 1 (shown between the points *a a* in Fig. 4) and forwardly to the extremity of the toe of the last, as indicated at the point 9. The reverse-slopes near the planes at the points *b* leave a depression at 10 in the bottom of the last, as shown in the drawings, or, if desired, this portion may be constructed as a straight bearing-line between the points 5 and 8, extending diagonally across the bottom of the foot. It will thus be seen that the bottom of the last will rest on the points 5 and 8 or on said straight line when placed on a level surface.

The outer sole of a shoe made on the last is bent and secured to the upper or insole thereof in such manner that precisely the same curvature or form is given or imparted to the



tread thereof as has been above described with reference to the base of the last, and in the use of the shoe in walking the toe of the foot of the wearer will be caused to turn outwardly, substantially as will be understood on referring to Fig. 5. The sole of the foot will normally rest on points on a line corresponding to the points 5 and 8 on the last; but when the pressure of walking is applied the shoe will have to tilt until the sole of the foot rests on the inclined surface represented in the vicinity of the plane taken at the line *a*. This will cause the foot to turn outwardly in an obvious manner. As the wearer walks along the weight of the body is gradually brought forward and applied at the toe of the shoe. The points 5 and 8 furnish the pivot, and the shoe under the influence of the weight of the body will tilt over on this pivot. This pivot is a line which extends angularly across the base of the foot, and consequently the tilting of the foot will be at an angle from the central line of the foot and in an outward direction. This is indicated in Fig. 5.

It is thought the construction and advantages of my improvements will be fully understood without further elucidation thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A shoe-last having the base thereof in advance of the shank formed across the same with reversely-sloped surface portions merging into each other forwardly of the last, and both tangent to the same imaginary plane, and thence gradually sloping outwardly and upwardly to the forward end of the last.

2. A shoe-last having the base thereof in advance of the shank formed of reversely-sloped surface portions merging into each other forwardly of the last and both tangent to the same imaginary plane, one at a point forward of the other and on the inside por-

tion of the last, and each gradually sloping upward from its point of tangency toward the toe portion of the last.

3. A shoe-last having on its bottom surface forward of the shank two normal bearing-points, one near each side of the last and one forward of the other, said surface sloping upwardly in opposite directions from said points.

4. A shoe-last having on its bottom surface forward of the shank two normal bearing-points, one near each side thereof, the one on the inside being located forward of the other, said surface sloping upwardly from said points at different inclinations forwardly of the last.

5. A shoe-last having on its bottom surface forward of the shank two normal bearing-points, one near each side of the last and one forward of the other, said bottom surface having a general upward slope forwardly from both of said points, all points on the inside edge of said sloping surface being lower than points directly opposite on the outside edge of said surface.

6. A shoe-last having on its bottom surface forward of the shank two normal bearing-points, one near each side thereof, the one on the inside being located forward of the other so that a line connecting the two points will extend diagonally across the base of the last, said surface having a general upward slope forwardly from said line, all points on the inside edge of said sloping surface being lower than points directly opposite on the outside edge of said surface.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT R. GARROD.

Witnesses:

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MANUEL CRESPO.