(No Model.)

A. I. EARLE.

SHOE TONGUE.

No. 260,854. Patented July 11, 1882.

Fig. 1.

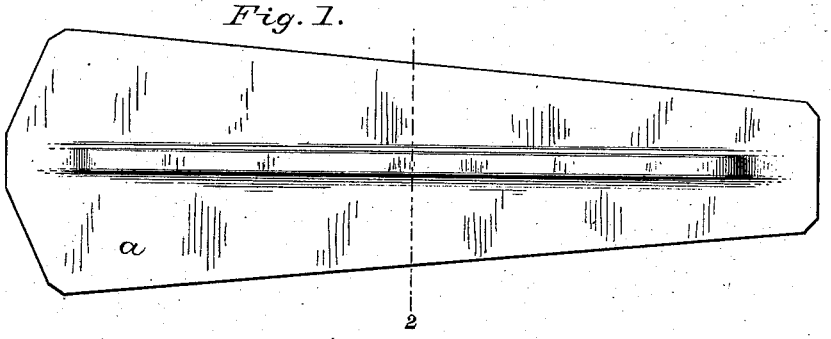

Fig. 2.

Fig. 3.

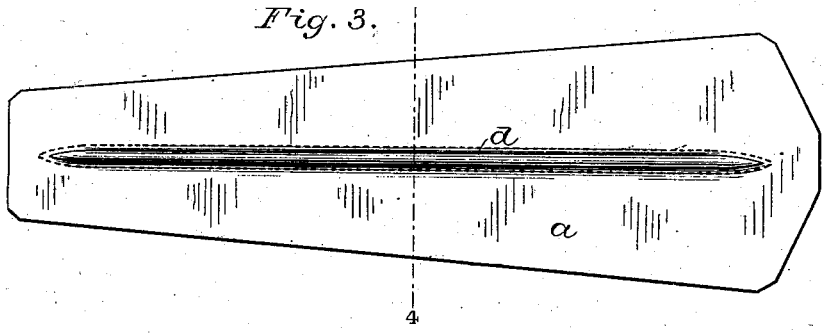

Fig. 4.

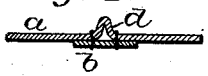

Fig. 5.

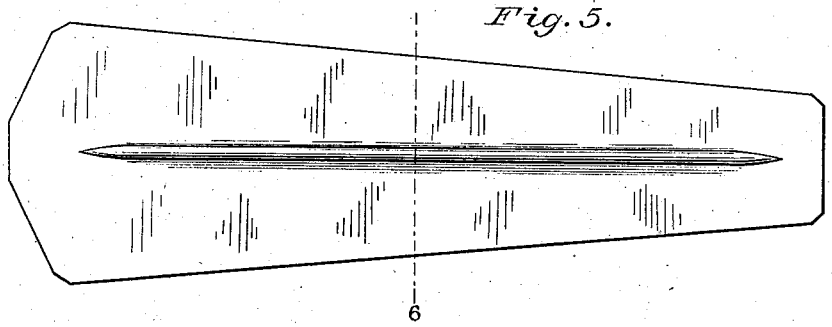

Fig. 6.

Attest:
Philip F. Larner.
Lowell Earle

Inventor:
Anthony I. Earle.
By Wm. G. Ward & Co. Attorney.

UNITED STATES PATENT OFFICE.

ANTHONY I. EARLE, OF VALLEY FALLS, RHODE ISLAND.

SHOE-TONGUE.

SPECIFICATION forming part of Letters Patent No. 260,854, dated July 11, 1882.

Application filed May 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY I. EARLE, of Valley Falls, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Shoe-Tongues; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part thereof, is a true, clear, and complete description of my invention.

The objects of my improvements are to overcome the well-known objections to shoe-tongues as heretofore constructed—viz., the liability of displacement and folding to the one side or the other in putting on and lacing up a shoe.

My invention mainly consists in a shoe-tongue which is centrally stiffened longitudinally, thus imparting to the tongue a self-sustaining capacity which will practically prevent it from folding upon itself and cause it to maintain its proper relations with the overlying edges of the shoe when laced.

To more particularly describe my invention, I will refer to the accompanying drawings, in which Figures 1 and 2 represent in front view and cross-section a shoe-tongue embodying my invention. Figs. 3 and 4 are respectively a front view and a cross-section of a shoe-tongue containing my invention, but differently constructed from that shown in Figs. 1 and 2. Figs. 5 and 6 are respectively a front and sectional view of a tongue embodying my invention, composed of a single thickness of skin or leather.

The longitudinal central stiffening of a shoe-tongue may be accomplished in various ways without substantial departure from my invention.

As shown in Figs. 1 and 2, my tongue is composed of two thicknesses. The upper or outer thickness, *a*, is preferably of leather or skin of any suitable variety, according to the class of shoe in which the tongue is to be employed. The lower thickness or back, *b*, may be of thin cheap skin, skiving, or cloth, as may be desired, because its function is that of an inside finish, as well as to effect a housing of the inserted tongue or stiffener *c*, which may be composed of any flexible material of sufficient bulk or strength to afford the desired self-sustaining capacity of the tongue when in use. The outer thickness, *a*, in its best form, is acted upon by means of dies or by rolls, to produce therein a longitudinal central recess at the rear side thereof and a rib on the front side, which extends nearly to each end of the tongue.

The internal stiffener, *c*, composed either of leather, rawhide, vulcanized rubber, stiffened paper, or any other suitable material, is provided in such form and length as to fill the recess, and it is secured therein by the back *b*, which is united to the outer thickness, *a*, by means of stitching or by adhesive matter, as may be deemed desirable, according to the class of shoes to which the tongues are to be applied.

Although I prefer to use this interposed stiffener, I do not limit myself thereto, except as hereinafter indicated in my claims, because, while such a stiffener is desirable in the best class of work, it may be dispensed with in tongues suited for cheap shoes, as illustrated in Figs. 3 to 6, inclusive.

In Figs. 3 and 4 the upper *a* has a central rib, *d*, formed by compression, without the development of any such recess as would be required for the reception of a separate internal stiffener, and this rib is protected from flattening incident to a lateral displacement or stretching of the leather composing it by means of the back *b*, which, as in Figs. 1 and 2, serves as an inside finish, and also as a means for preventing the separation of the raised portion of the front thickness and the consequent flattening of the rib.

Although adhesive matter may be applied for uniting the two thicknesses in this case, it is obviously desirable to employ a line of stitching along each side of the rib.

While I prefer to employ a rear thickness of material, as shown, I do not limit myself thereto, because in making tongues for the cheapest classes of work I can provide for the central longitudinal stiffening without employing either an internal stiffener or a rear thickness of material—as, for instance, as illustrated in Figs. 5 and 6.

In making this form of stiffened tongue the leather is folded flatly upon itself, so that the folded edge is located exactly in the center of the tongue, and it is then firmly stitched

through and through a short distance from said folded edge and to within a half-inch or so of each end of the tongue. The leather is then spread flatwise, and while properly dampened is compressed between slightly-heated dies, one of which is plain and the other grooved to receive and shape the rib formed by the stitched fold, thereby fully developing said rib and flattening or straightening the leather on each side and at the ends of the rib.

When compressing-dies are employed in the manufacture of tongues it is desirable at times to have such dies provided with a contour of their coincident faces to correspond generally with the contour of an instep.

If a small stiffener is desired without the back piece, it can be inclosed within the fold and stitched, as last described, and the filled rib subsequently developed by the compression-dies.

In some cases the stiffening-rib should be made very thin at that part of the tongue which would overlie the top of the instep, and in other cases the interposed stiffener should be, say, one-third the width of the tongue, with thinly-shaved edges, thus affording the desired stiffening without a specially-developed rib.

Although I have referred to certain modes of manufacture, it is obvious that they may be indefinitely varied without affecting my invention.

However the rib may be formed or the tongue longitudinally stiffened centrally, the two ends should be flat, soft, and flexible, so that the lower end can be neatly stitched to the shoe, and the upper end so that it may freely adapt itself to the leg or ankle.

The presence of the well-defined rib, as a rule, in heavy shoes occasions no inconvenience to the wearer, because the rear surface of the tongue is flush or smooth; and the rib need seldom, if ever, be thicker than the adjacent edge portions of the shoe, and as it occupies the space between the laced edges it results in a neat and desirable finish at the lacing.

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

1. A shoe-tongue centrally stiffened longitudinally, substantially as described.

2. The combination, with a shoe-tongue, of an inserted longitudinal central stiffener, substantially as described.

3. A shoe-tongue ribbed centrally and longitudinally on its outer surface and flush or smooth on its rear surface, substantially as described.

ANTHONY I. EARLE.

Witnesses:
BENJAMIN L. DENNIS,
H. M. BROWN.