

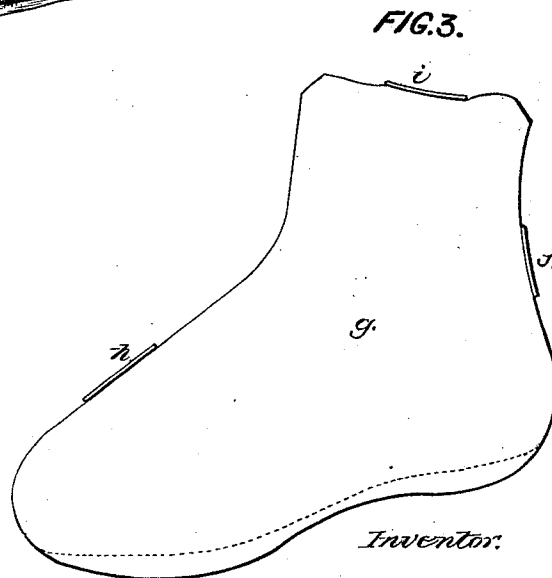
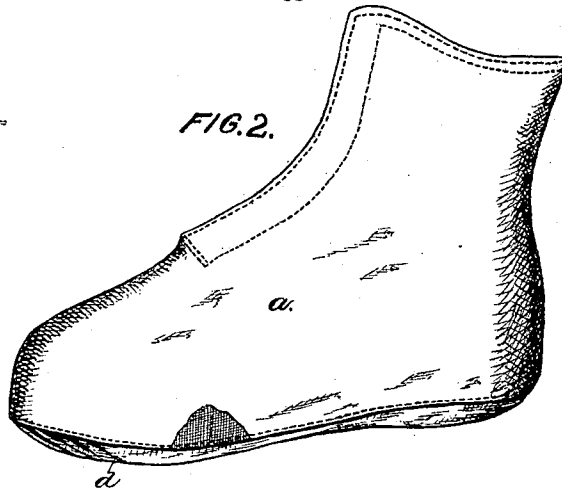
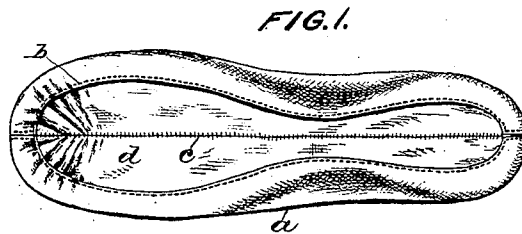
(No Model.)

J. H. APPLGATE.

MANUFACTURE OF BOOTS AND SHOES.

No. 248,567.

Patented Oct. 25, 1881.



Witnesses.

Arthur Reynolds.
Percy J. Hayes.

Inventor.

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UNITED STATES PATENT OFFICE.

JOHN H. APPLGATE, OF MALDEN, MASSACHUSETTS.

MANUFACTURE OF BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 248,567, dated October 25, 1881.

Application filed April 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. APPLGATE, of Malden, county of Middlesex, State of Massachusetts, have invented an Improvement in the Manufacture of Boots and Shoes, of which the following description, with the accompanying drawings, is a specification.

This invention in boots and shoes has for its object improvements in that step of their manufacture known as "lasting," whereby the employment of tacks to secure the upper in place about the last and inner sole may be avoided.

In this my invention the edges of the upper to be interposed between the outer and inner soles are joined together by the shoe-lining, secured to the upper by stitches or otherwise, the lining extended beyond the edges of the upper being sewed together, forming a lasting-sole having a longitudinal seam therein, which, in sewing, may be gathered more or less at or near the toe or heel, or both, according to the shape of the boot or shoe or the curvature of the last at its toe or heel. The lining which forms this lasting-sole is composed of a thin flexible material, such as cloth, and as a part of the regular lining of the boot or shoe, the said lining being of sufficient size to project beyond the lower edge of the upper, where it is shaped by a suitable pattern or form to curve the free edge of the lining more or less, according to the width and curvature of the last.

Figure 1 represents a bottom view of one form of a shoe embodying my invention; Fig. 2, a side view thereof, the upper being removed from the last; Fig. 3, the pattern for shaping the lasting-sole.

In the drawings, *a* represents an upper of a laced shoe, having a front seam; but it is obvious that the said upper might be of any other usual or desired shape.

The upper in Figs. 1 and 2 is provided with a lining which is extended beyond the lower edge of the upper, where it is stitched to the upper by the line of stitches *b*, after which the said lining, shaped as will be hereinafter described, is united together, forming a seam, *c*, extending from the heel to the toe of the shoe or last, thus forming a lasting-sole, *d*. This seam *c* in its formation may be gathered more or less at or near the toe or at the heel, or both, so as to draw in the lasting-sole to enable the

toe or heel of the upper to be strained or fitted to the shape of the last at its toe or heel. Such gathers are shown in Fig. 1.

The upper, laid upon a board or table, and provided with an extended lining or pieces of cloth or suitable flexible material to form the lasting-sole, has placed upon or against it the pattern *g*, provided with lugs *h i j*, the lower end of the said pattern being enough larger than the upper, and being so shaped or bulged, as to determine the width and shape of those parts of the shoe or lining which parts are to enter into the composition of the lasting-sole. The pattern and upper having been so placed together, the part to form the lasting-sole is marked in any suitable way to determine the proper line for the seam *c*.

At or near the toe of the upper, when the upper is to be fitted closely and without wrinkles to the last, the material of the lasting-sole is gathered or shirred more or less, one piece on the other, to draw in the toe, or it may be the heel.

In the class of shoe herein shown, having an upper with a front seam, I prefer to give to the upper some extra inward curvature at the toe and heel, which assists in enabling the toe and heel to be lasted smoothly. This seam *c* may be made with the shoe-upper right or wrong side out, as may be desired. After the seam *c* has been formed the upper is placed upon a last of suitable size, having an inner sole upon it, and the last, firmly driven or forced into the upper, stretches the lasting-sole tightly across the inner sole, and fits the upper snugly to the last, leaving the shoe in condition to have applied to it the usual outer sole.

In this my method of manufacture it is unnecessary to employ tacks. The dotted lines on the pattern show the difference in shape between it and the upper of the shoe shown in Fig. 2.

I am aware that it is not new to connect the opposite edges of the upper by means of threads or straps, and by a sole-shaped piece of material.

The seam *c* might be a lap-seam secured by strong glue or compo.

I claim—

1. In a boot or shoe, the lining secured to and extended outward beyond the lower edges

of the upper, and united together to form a seam, *c*, substantially as described.

2. In a boot or shoe, an upper and a flexible lasting-sole formed as an integral part of the lining of the shoe-upper, the said lasting-sole being provided with a longitudinal seam, *c*, substantially as described.

3. That improvement in the art or method of manufacturing shoes which consists in providing the upper with flexible extensions, then by a pattern indicating the proper line for and forming the seam *c*, and then forcing the last into the upper, substantially as described.

4. In a boot or shoe, a lasting-sole secured to the upper, as described, and provided with a longitudinal central seam having gathers at the toe, substantially as described.

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

JOHN H. APPLGATE.

Witnesses:

W. H. SIGSTON,

BERNICE J. NOYES.