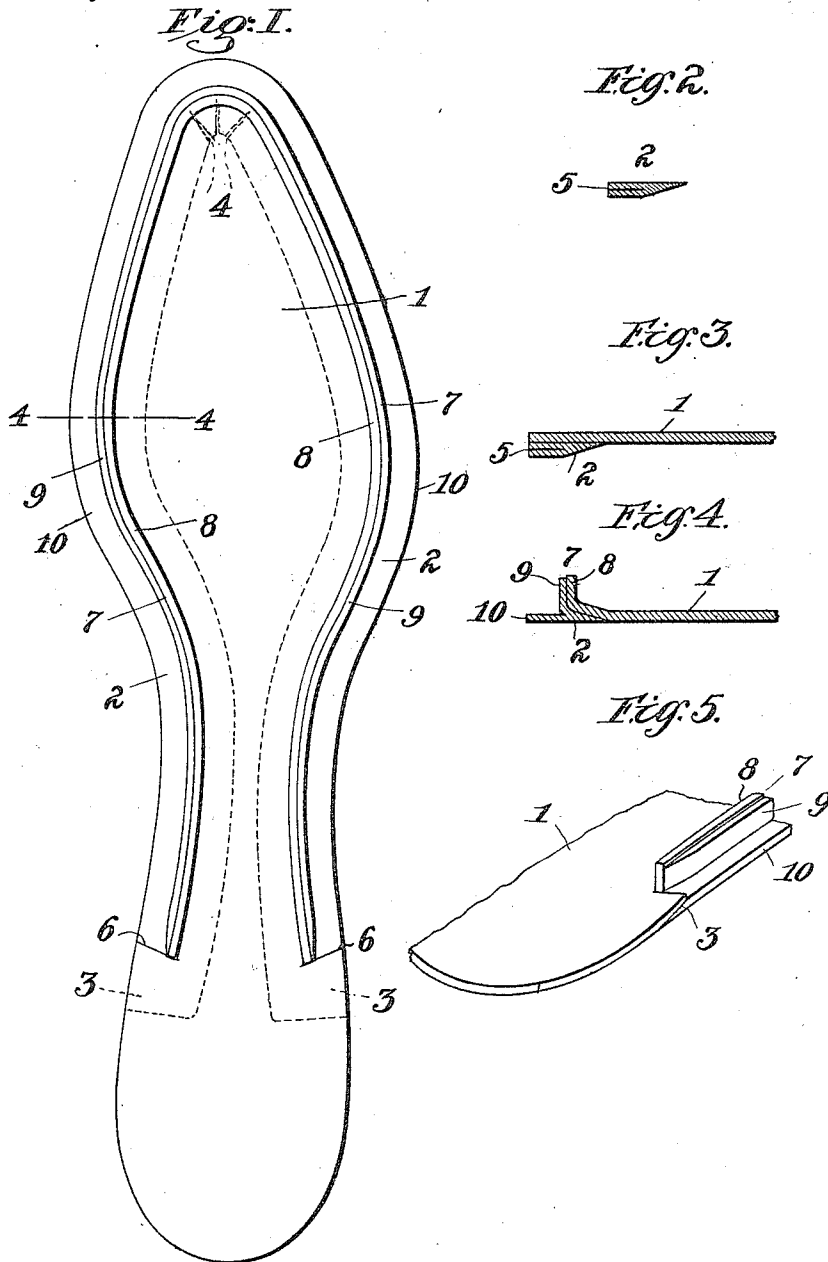


S. M. BRADLEY.
WELT INSOLE.
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UNITED STATES PATENT OFFICE.

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WELT-INSOLE.

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To all whom it may concern:

Be it known that I, SAMUEL M. BRADLEY, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Welt-Insoles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an improvement in insoles for use in the manufacture of boots and shoes and more particularly to double-lipped insoles which are used principally in the manufacture of welt boots and shoes. It has been customary heretofore to make such double-lipped insoles out of a leather sole shaped blank, first splitting it along its edge around the shank and forepart to form a lip and a feather. A channel also is cut in one face of the blank around its shank and forepart within the edge cut thereby forming a second lip parallel to the other lip. These two lips are preferably cut simultaneously and may be turned up at right angles to the body portion of the insole to form a single stitch-receiving lip around the shank and forepart of the insole. As these two lips are made by oppositely disposed cuts in the body portion of the insole it is necessary that the body portion of the insole be made of relatively thick material, for the lips cut therefrom, when compounded, must afford at their base sufficient material to receive and hold the stitches of the insole. In actual practice it is found that when the insole is made thick enough to produce the proper stitch-receiving lip it is not as flexible as is desirable for use as an insole in a welt shoe. Such insoles are therefore usually subjected to a further operation in which a series of transverse slits are provided in the forepart of the insole to impart the desired flexibility thereto. In order to obviate the necessity of this subsequent operation on the insole some insoles are made of relatively thin stock and the weak compound lip produced thereon is brought to the required strength by reinforcing it with canvas. There is a certain economy of manufacture in this latter method in that cheaper material may be employed for the insole, and as this material is sufficiently

flexible for use in a welt shoe the sole slashing operation may be omitted. The reinforcing strip of canvas, however, must be specially prepared and special machinery must be employed in applying it to the insole. While the insole manufactured by the second method is certainly more economical than the all leather insole made by the first method, it is very desirable, from a selling point of view, that insoles for use in welt shoes be made entirely of leather.

The object of the present invention is to produce an inherently flexible all leather welt insole provided with a compound lip sufficiently strong to receive and hold the in-seam stitches without reinforcement.

To this end the present invention contemplates the manufacture of an all leather welt insole in sections, one section comprising a sole shaped blank having the inner lip of the insole formed on its marginal portion throughout its shank and forepart, and the other section comprising a wedge-shaped strip attached to the blank outside of the inner lip and one edge split to form the outer lip and feather of the insole.

Broadly considered the stitch receiving lip may be compounded from the separate sections in any suitable manner found desirable or expedient. In the preferred form of the invention a sole shaped blank is cut out of a sheet of thin flexible leather, and a wedge shaped strip, prepared from available scrap leather, is cemented to the periphery of the sole shaped blank along its shank and forepart. The outer or thick edge of the attached strip is then split substantially throughout its length, and the marginal edge of the assembled blank and strip above the cut is turned up into a compound stitch receiving lip. The inner lip of the insole is thus formed from the full thickness of the sole shaped blank, while the outer lip and the feather are formed from the attached strip.

In the accompanying drawings showing an insole in actual size and illustrating the best form of the invention at present known to the inventor,—Figure 1 is a plan view of the improved all leather double-lipped insole; Fig. 2 is a transverse section of the wedge-shaped strip; Fig. 3 is a transverse section illustrating a step in the process of manufacture of the insole; Fig. 4 is a sectional elevation on the line 4—4 Fig. 1; and

Fig. 5 is a detail in elevation of the end of the stitch receiving lip.

In the illustrated embodiment of the invention the all leather double lipped insole is made in sections comprising a body portion 1, and an attached strip 2. The sole shaped blank from which the body portion 1 is made is cut from a sheet of leather much thinner and therefore more flexible than the ordinary insole stock. The strip to be attached is cut so as to provide an approximately wedge-shaped cross-section (see Fig. 2) from leather waste not ordinarily available for use in the manufacture of welt shoes. The ends of a sufficient length of the strip available for use on a sole are skived as at 3 (Fig. 5) and the strip intermediate its ends is slit as at 4 (Fig. 1) to permit the strip to be readily bent about the periphery of the sole shaped blank. The strip is applied to the periphery of the blank along its shank and forepart with the thick edge of the strip preferably flush with the edge of the sole blank and the sections are joined in this position by any suitable securing means, preferably cement (Fig. 3). The edge of the sole as thus formed is then split by a cut 5 extending into the attached strip 2 (Fig. 3) substantially throughout the length of the strip. A pair of slits 6, (Fig. 1) are cut at opposed points in the edge of the insole substantially at the breast line. The slit 4 in the strip 2 forming the marginal portion of the sole emerges from the strip through the skiving at each of its ends, at points opposite the cuts 6 (see Fig. 5). The marginal portion of the assembled sections extending forwardly of the cuts is turned up and set into the position shown in Fig. 4 to form the stitch receiving lip 7. The stitch receiving lip is thus compounded from an inner lip 8 formed from the body portion 1 and an outer lip 9 formed from the attached strip 2. In addition to the upturned portion forming the outer lip 9, the attached strip is provided with a portion extending

outside of the outer lip 9 which forms the feather 10 of the insole, and a portion extending inside the outer lip and beneath the inner lip, which holds the strip to the body portion by the joining cement. By this method of manufacture there is produced an extremely flexible all leather welt insole having, however, a lip which is sufficiently strong to receive and hold the insole stitches without the necessity of reinforcement. As this novel insole may be manufactured from thin or poor stock without the necessity of subjecting the insole to a subsequent reinforcing or sole slashing operation, a considerable economy in manufacture is effected, as will readily be understood by those skilled in the art.

The nature and scope of the present invention having been indicated and the preferred embodiment of the invention having been specifically described, what is claimed is:—

1. A double-lipped all leather insole, comprising a sole shaped blank, having the inner lip of the insole formed on its marginal portion and a wedge-shaped strip secured beneath the inner lip to the periphery of the blank along its shank and forepart, said strip having its outer edge split substantially throughout its length and upturned against the inner lip, thereby forming the outer lip and feather.

2. A double-lipped all leather insole, comprising a sole shaped blank, having an inner lip formed by upturning the entire thickness of the marginal portion of the blank, and a wedge-shaped strip arranged parallel thereto consisting of an upturned portion forming an outer lip, a portion outside of said outer lip forming a feather, and a portion inside of said outer lip and beneath the inner lip by which the strip is secured to the blank.

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Witnesses:

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