Jan. 12, 1932. M. LAPIDUS 1,840,514

INSOLE

Filed Nov. 2, 1929

Fig. 1.

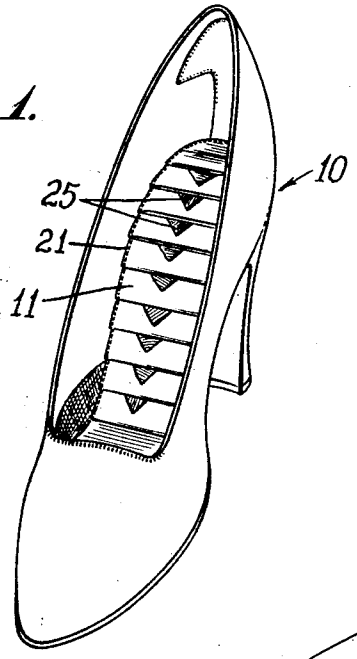


Fig. 2.

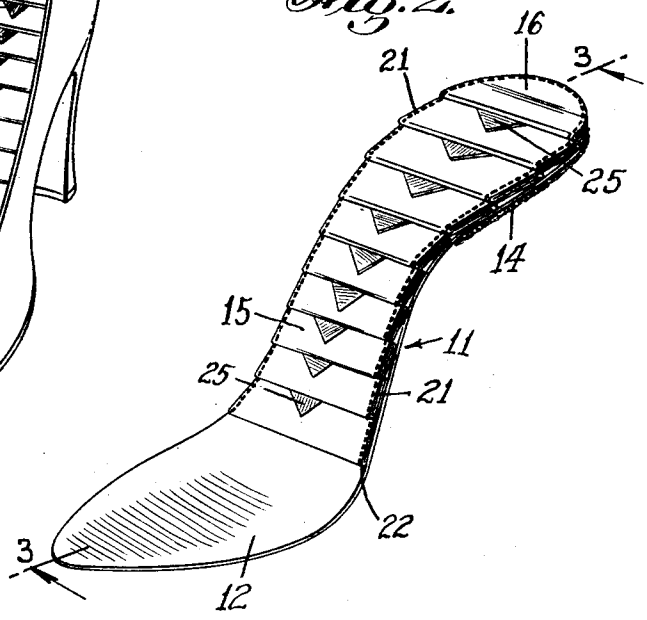
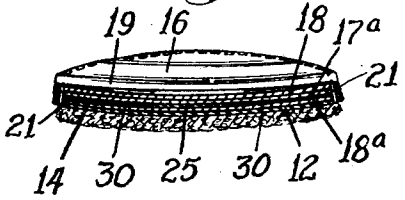


Fig. 4.



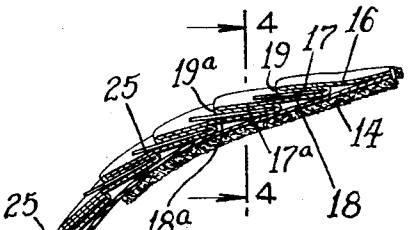
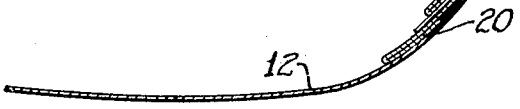


Fig. 3.



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UNITED STATES PATENT OFFICE

MORRIS LAPIDUS, OF BROOKLYN, NEW YORK

INSOLE

Application filed November 2, 1929. Serial No. 404,251.

This invention relates to foot wear.

An object of this invention is to provide shoe, boot or slipper construction having an improved insole adapted to prevent slipping of the foot within the shoe, provide efficient ventilation and a comfortable cushion for the foot.

A further object of this invention is to provide neat, compact and durable inner sole construction for shoes and the like, which may be manufactured either as a separate article adapted to be applied to the ordinary shoe or incorporated into the shoe during the manufacture thereof, which shall be of relatively economical construction, comprise few and simple parts, and which shall be sanitary and comfortable in use and practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawings, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a perspective view of a lady's shoe provided with inner sole construction embodying the invention;

Fig. 2 is a perspective view of an insole embodying the invention, attached within a shoe;

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 2; and

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 3.

Referring now in detail to the drawings, 10 designates a shoe, here shown, for the purpose of illustration only, as a lady's shoe, and 11 designates an insole embodying the invention fixed within said shoe, as by glueing or otherwise attaching the same thereto. Said insole 11 preferably comprises a flat thin strip or sheet 12 of leather or any other suitable material, shaped to conform to the inside contour of the shoe to which it is to be attached. A heel pad 14 made of any suitable cushioning material may be attached as by glueing or in any other suitable manner to the rear undersurface of the strip 12. Attached to the upper surface of said strip 12 is a member 15 adapted to provide highly improved cushioning means for the foot and also form an effective ventilator for providing a circulation of air on the underside of the foot, said member furthermore serving to prevent the foot from slipping forwardly within the shoe.

Said member 15 is preferably made of a single elongated flexible sheet of material such as leather, properly folded or pleated transversely in the manner hereinafter appearing, attached to the strip 12 and cut to the proper shape or contour to conform to the shape of the portion of said strip to which it is attached. The manner in which the member 15 is folded is clearly illustrated in Figs. 2 and 3 of the drawings. Beginning with the portion 16 at the rear of the heel, it is noted that the sheet material of which the member 15 is made, is folded rearwardly and underneath said portion 16 as shown at 17, and then underneath said portion 17 and forwardly as shown at 18, said portion 18 extending beyond the folded edge portion 19 formed by folding back the portion 17. The portion 18 is again folded back and under as shown at 17*a* to form a folded edge portion 19*a*, and then again forwardly and underneath as shown at 18*a*. This method of folding is repeated to cover any desired area or portion of the strip 12. The folded edge portions 19, 19*a* etc. are thus folded against adjacent portions of the member 15. The end 20 of the member 15 is preferably folded

underneath its adjacent overlying portion and then the member 15 is attached to the strip 12 as by stitching 21, said stitching extending entirely around the outer edge portion 22 of said member 15.

It will be noted however, that the parallel equally spaced edge portions 19, 19*a* etc., are unattached and form a series of parallel pockets 30 providing circulation of air for ventilating the shoe. Small flat pieces 25 of leather or any other suitable material may be inserted between said parallel pockets and attached to an adjacent portion of said member 15 in any suitable manner. For the purpose of illustration, these members are shown to be triangularly shaped, and somewhat protruding from said pocket, it being understood however, that said pieces may be of any suitable and ornamented shape and serve to somewhat separate the folded edge portions 19, 19*a* etc., from the folded portions 18, 18*a*, etc., respectively, thus enlarging the pockets 30 for increasing the circulation of air. The folded edge portions 19, 19*a* and the pieces 25 furthermore form ridges for preventing the foot from slipping within the shoe. Obviously, the pleats or folds in the member 15 and the pockets formed thereby also provide a cushion for adding to the comfort of the shoe.

It will be now understood that the insole 11 may be manufactured separately as an article adapted for attachment to shoes now in use or may be incorporated into the shoe structure during manufacture of said shoe.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

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

1. An insole comprising a backing sheet, and a single sheet member overlying said first sheet comprising a plurality of parallel folded edge portions, folded against adjacent portions of said member.

2. Inner sole construction of the character described comprising a backing sheet, and a single folded piece of sheet material overlying said first sheet, having a plurality of parallel folded edge portions folded against said sheet and stitched thereto in folded position at the ends thereof to form pockets.

3. Inner sole construction of the character described comprising a single folded piece of sheet material having a plurality of parallel folded edge portions forming a plurality of parallel pockets, and a small flat piece of material inserted into each of said pockets.

4. Inner sole construction of the character described comprising a backing sheet, and a single folded piece of sheet material overlying said first sheet, having a plurality of parallel folded edge portions folded against said sheet, and stitched thereto in folded position at the ends thereof to form pockets, and pieces of flat sheet material inserted in said pockets.

In testimony whereof I affix my signature.

MORRIS LAPIDUS.