April 5, 1938. A. L. SANCHIONI 2,113,183

FLEXIBLE INNER SOLE

Filed Oct. 12, 1936

Fig. 1

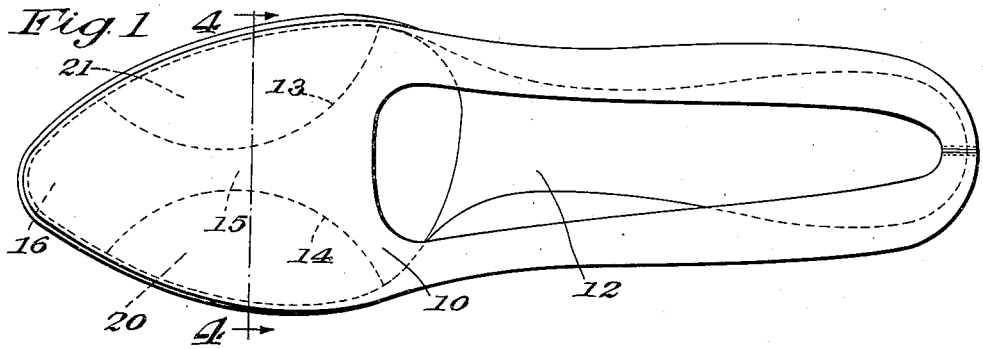



Fig. 2

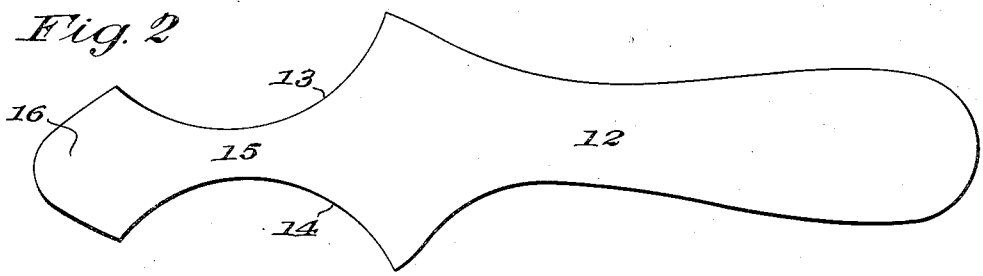



Fig. 3

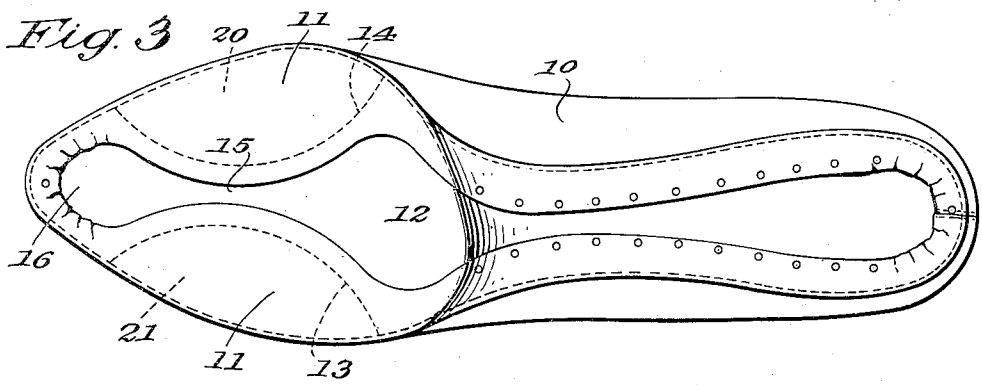



Fig. 4

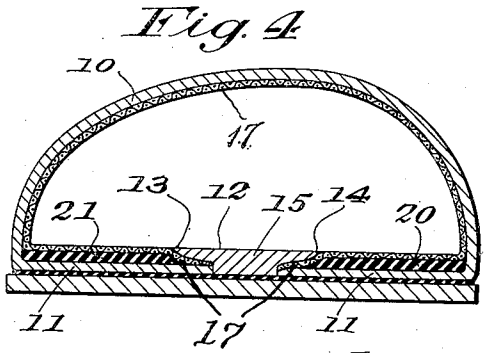



Fig. 5

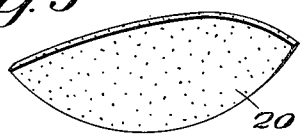
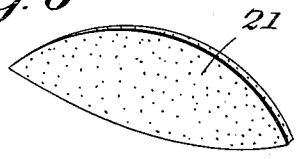



Fig. 6

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Patented Apr. 5, 1938 2,113,183

# UNITED STATES PATENT OFFICE

2,113,183

## FLEXIBLE INNER SOLE

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Application October 12, 1936, Serial No. 105,178

1 Claim. (Cl. 36—12)

This invention relates to improvements in inner soles of shoes whereby the shoe is rendered more flexible.

As is well known in the industry many attempts have been made to secure flexibility in stitched or compo shoes across the ball of the foot. One method has been by slashing the leather across the inner sole at the ball portion. Another is the Del-Mac or Sbicca method of splitting the outer sole around the edges except at the ball of the foot and using the split off section with a hole in it at the ball of the foot as the inner sole, thus eliminating the inner sole entirely. I find that I am able to achieve the desired flexibility by cutting out portions of the inner sole at the ball portion leaving only a central strip. This method eliminates the bottom filler or felt padding which ordinarily fills the cavity between the stitched bottom edges of the upper. My method also provides all the advantages of a turned shoe with regard to flexibility but avoids the objectionable ridge of stitching.

Before explaining in detail the present invention it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation, and it is not intended to limit the invention claimed herein beyond the requirements of the prior art.

In the drawing:

Fig. 1 is a plan view of a shoe showing my improved inner sole inserted therein in dotted lines.

Fig. 2 is a plan view of the inner sole itself.

Fig. 3 shows the bottom of a shoe upper after it has been lapped over the inner sole.

Fig. 4 is a vertical cross section in lines 4—4.

Figs. 5 and 6 represent inserts or cushions to be inserted in cut-out portions of the inner sole.

In the drawing, 10 represents the upper of a shoe with bottom edges 11 which are turned under and along which portions the upper is attached to the inner sole. The inner sole is shown at 12. The inner sole has cut-out portions 13 and 14 at the ball portion leaving a central longitudinal strip 15 extending to the toe portion 16. In using an inner sole 12 thus cut away at the ball portion, it is preferable to make the lining 17 of the upper longer so that it may lap over and be attached by adhesive to the inner sole at the cut-out portions 13 and 14. The usual bottom filler or felt padding which fills the depression between the stitched bottom edges of the upper is eliminated entirely. If desired, rubber inserts or cushions 20 and 21, shown in Figs. 5 and 6, may be inserted between the upper 10 and the toe lining 17 on either side to fit cut-out portions 13 and 14 of the inner sole, to provide a cushion where the weight falls on the shoe. Thus a cushioning effect may be provided without interfering with flexibility.

I have found that an inner sole cut out at the ball portion in this manner provides desirable flexibility in a shoe without loss of strength. The bottom filler or felt padding is eliminated between the overlapping bottom sides of the upper and the insertion of rubber cushions at the cut-out portion provides a cushioning effect where the weight falls on the shoe and where it is needed most.

I claim:

As a new article of manufacture, a shoe including an inner sole having a portion cut away on each side at the ball portion, rubber inserts between the upper and lining fitting the cut-out portions of said inner sole and an upper having edges attached to said inner sole.

ADOLF L. SANCHIONI.