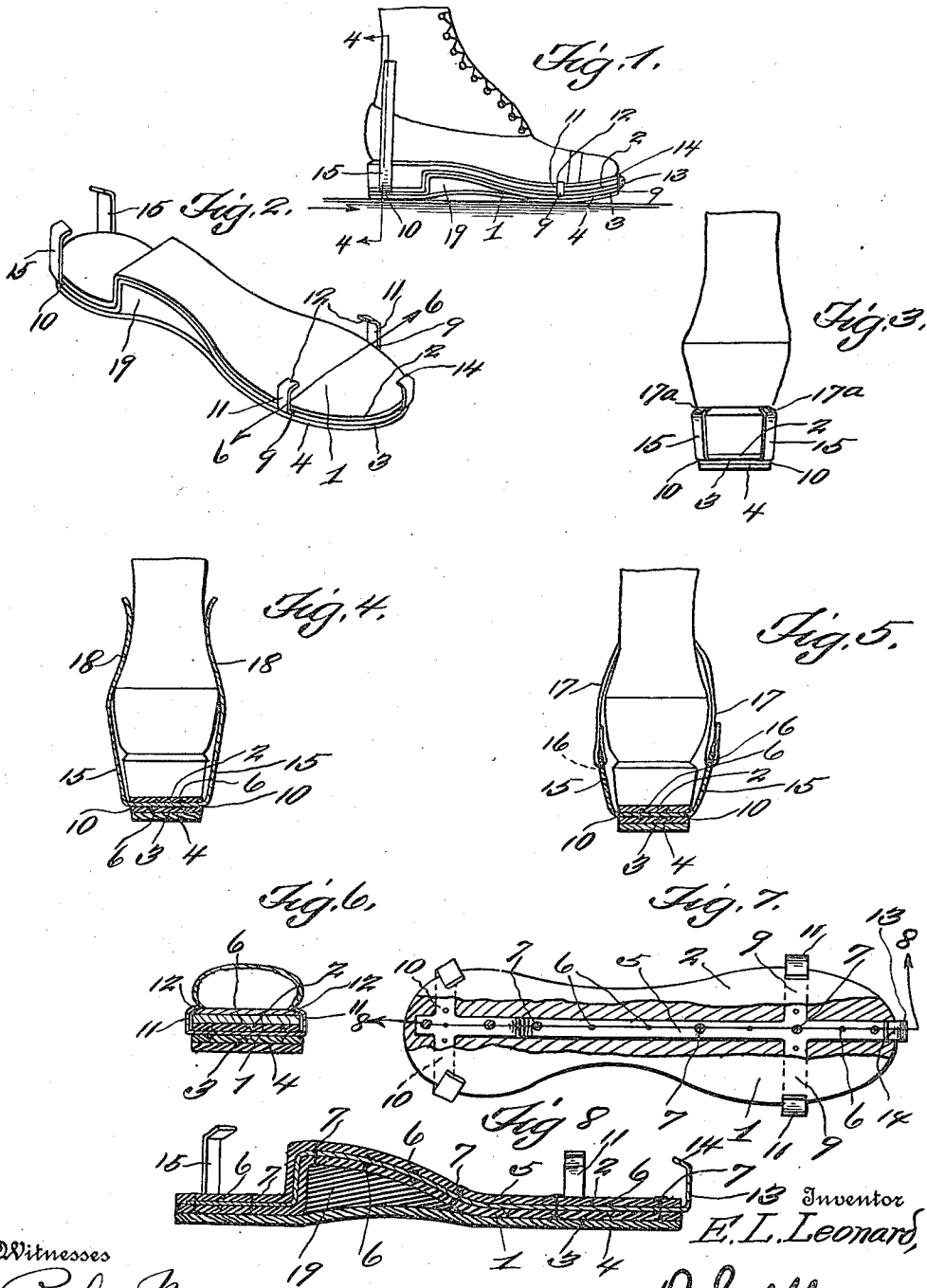


E. L. LEONARD.
 NOISELESS SOLE.
 APPLICATION FILED JAN. 18, 1913.

1,063,205.

Patented June 3, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWIN L. LEONARD, OF WOODWARD, OKLAHOMA.

NOISELESS SOLE.

1,063,205.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWIN L. LEONARD, a citizen of the United States, residing at Woodward, in the county of Woodward and State of Oklahoma, have invented a new and useful Noiseless Sole; 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.

This invention relates to a new and useful rubber sole.

As an object of the invention, the aim is to provide an improved rubber sole, adapted mainly for use, by doctors, nurses, and other attendants of hospitals and the like, whereby such attendants, or others who have to enter a sick room, may do so without fear of arousing or disturbing the patient. In private homes, the attending physician may slip a pair of the soles on very readily, before entering the patient's room.

To accomplish the above objects in the most efficient and purposeful manner, it is the aim to construct a sole formed of a composition of rubber and canvas, say for instance, three layers of such material, including a central flexible metallic strengthening strip, riveted or otherwise securely fastened between two of the layers, in order to lend the requisite rigidity to the structure, without foiling the necessary resiliency or flexibility. The sole or the layers thereof may be constructed of felt, cork, rubber, or a composition of rubber and cork or canvas and felt, or any other suitable soft material or the like. The strengthening strip may be riveted on top of the sole or between the layers, or in any other suitable manner.

Furthermore, to assist in attaining the above objects, the aim is to provide the central strengthening or stay strip with laterally extending arms or extensions, forming integral parts thereof, or otherwise connected thereto. Said arms terminating in attaching means, whereby the sole may be fastened with sufficient firmness to one's shoes.

There are disclosed in the drawings certain features of construction, but in practical fields these features may necessitate alterations, to which the patentee is entitled, provided the alterations are comprehended within the scope of what is claimed.

The invention comprises further features and combinations of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view showing the improved sole constructed in accordance with the invention, and as applied to one's shoe. Fig. 2 is a perspective view, showing the sole detached. Fig. 3 is a rear view, showing one form of attaching means, whereby the sole may be fastened to one's shoe. Fig. 4 is a sectional view through the heel of the sole upon line 4—4, showing another form of attaching means. Fig. 5 is a rear view showing still another form of attaching means for the heel. Fig. 6 is a sectional view on line 6—6 of Fig. 2, showing an attaching means for securing the forward portion of the sole to the shoe, which is also shown in section. Fig. 7 is a plan view partly broken away and partly in section, showing a portion of the stay strip in dotted lines, and other portions of said strip in full lines. Fig. 8 is a sectional view on line 8—8 of Fig. 7.

Referring more particularly to the drawings 1 designates the sole, which consists of a series of layers of composition of canvas and rubber, said layers being designated 2, 3 and 4. These several layers may be constructed of any suitable material, for instance, felt, cork, rubber, or a composition of rubber and cork or canvas and felt. Further, the layers may be secured together in any suitable manner, such as by vulcanizing or riveting. The sole is constructed in a contour, in order to fit the shape of the bottom or sole of a shoe. In other words, the forward end of the sole is curved in the manner shown, while the heel end of the sole is offset as shown, in order to properly fit the heel.

In manufacturing the sole, a flexible strengthening or stay strip of metal 5 is molded or arranged between the layers 2 and 3, when they are vulcanized together. This strengthening or stay strip may be further secured between the said layers 2 and 3, by means of the spurs or lugs 6, as shown in Figs. 7 and 8, or riveted or otherwise secured in place, as shown at 7 in Fig. 8. The lower layer 4 of the sole and heel is also vulcanized to the layers 2 and 3.

The central strengthening or stay strip is provided with lateral projecting arms 9

and 10. The arms 9 project beyond the sides of the forward portion of the sole, and terminate in upwardly extending additional arms 11, which are provided with inwardly directed extensions 12, to engage over the sole of the shoe. The forward end of the strengthening strip 5 terminates in an upwardly extending arm 13 having an extension 14, to engage the extreme toe end of the sole of the shoe, in order to prevent longitudinal displacement of the rubber sole.

The laterally extending arms 10 also terminate in upwardly extending additional arms 15, which in Fig. 5 terminate in elongated eyes 16, which receive attaching strings, or straps or the like 17, the ends of which may be tied together or provided with a buckle (not shown), or otherwise connected. In Fig. 3, however, the arms 15 terminate in extensions 17^a, to engage the heel of the shoe, while in Fig. 4 the arms 15 are more or less elongated, as shown at 18, in order to extend up the sides of the rear portions of the vamp of the shoe. All of these numerous attaching means and others, may be employed, for securing the rubber sole to one's shoes, in order that an attending physician or other attendant, may enter a patient's room.

The lower layer 4 of the sole does not exactly conform to the abrupt junction between the sole and the heel, but gradually inclines or merges into the heel, there being a filler 19 between this lower layer and the layer 3. However, the upper layer 2 exactly fits or conforms to the junction between the

sole and the heel of one's shoe, as defined in Fig. 8 clearly.

It is to be ascertained from the foregoing that there has been devised an essentially, improved, efficient and desirable rubber sole, and one which has been found particularly practicable, in order to be worn by a physician or other attendant, in order to permit a noiseless entrance into a patient's room.

The invention having been set forth, what is claimed as new and useful is:—

A sole adapted to be detachably worn upon a shoe, said sole comprising a series of layers of composition of canvas and rubber vulcanized together, a central strengthening or stay strip positioned between two of the sections and provided with laterally and forwardly extending arms, terminating in upwardly extending attaching means for attaching the sole to a shoe, said strengthening or stay strip having spurs for preventing displacement of the strip, the junction between the upper two layers of the sole and heel conforming exactly to the contour of the junction between a sole and heel of a shoe, and the lower layer of the sole gradually merging from the forward portion of the sole into the top lift of the heel.

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

EDWIN L. LEONARD.

Witnesses:

W. H. O'BRIAN,
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