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1,500,583

L. GLANZER

PNEUMATIC SOLE

Filed Dec. 9, 1922

Fig. 1.

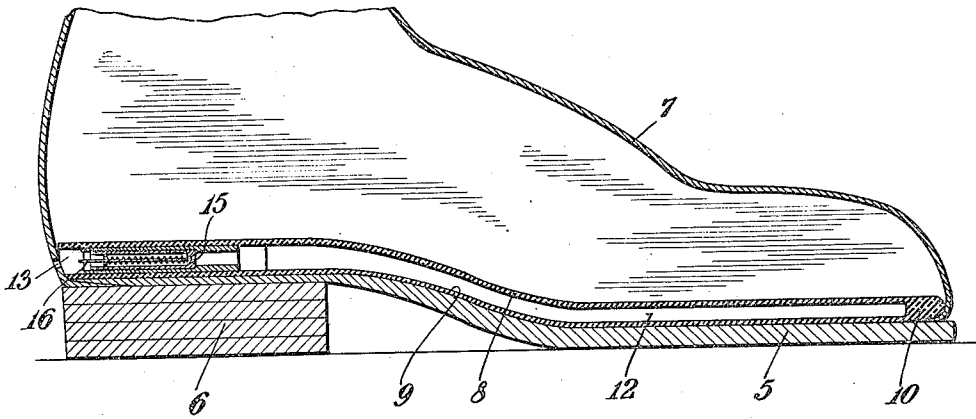


Fig. 2.

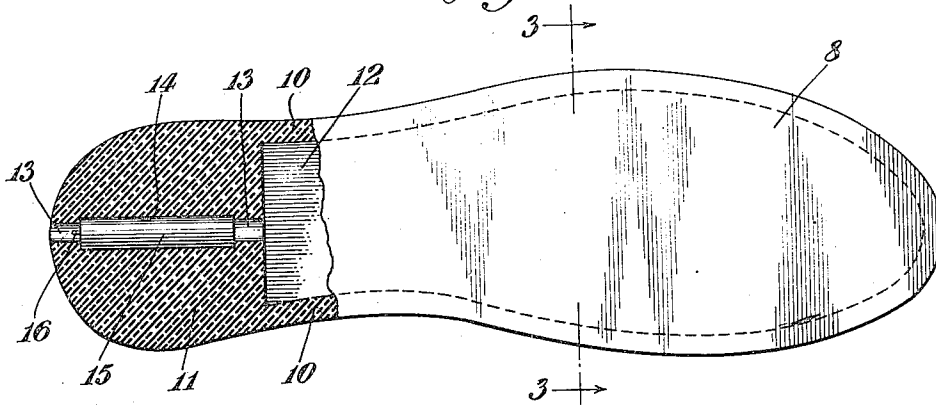
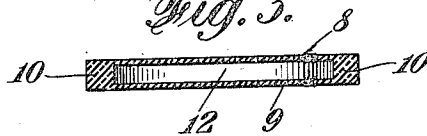


Fig. 3.



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UNITED STATES PATENT OFFICE.

LUDWIG GLANZER, OF WINKLER, KANSAS.

PNEUMATIC SOLE.

Application filed December 9, 1922. Serial No. 605,766.

To all whom it may concern:

Be it known that I, LUDWIG GLANZER, a citizen of United States, residing at Winkler, in the county of Riley and State of Kansas, have invented certain new and useful Improvements in Pneumatic Soles, of which the following is a specification.

This invention relates to foot wear and particularly to inner soles as used in connection therewith.

The main object of the invention is to provide a pneumatic inner sole for boots, shoes and the like whereby walking and standing is rendered less fatiguing than ordinarily, the sole conforming to the foot so as to support the same in a uniform and comfortable manner.

Another purpose is to produce a sole that can be inflated or deflated in a rapid and convenient manner and which can be used in connection with shoes as commonly constructed.

A further aim is in the provision of a pneumatic sole that can be cheaply constructed and is capable of continuous service for a considerable period of time.

These objects are attained by the novel construction and arrangement of parts hereafter described and shown in the accompanying drawing, in which:—

Figure 1 is a longitudinal sectional view taken through a conventional type of shoe, including an embodiment of the invention.

Figure 2 is a plan view of the sole, partially broken away to disclose the construction.

Figure 3 is a transverse sectional view taken on line 3—3 of Figure 1.

In Figure 1 of the drawing, a common type of shoe is shown comprised of a sole 5, heel 6 and upper 7, all of ordinary construction.

The inner sole shown therein is relatively loose so as to be entered or removed without difficulty and can be reversed or used either side up at will.

This sole is composed of two flexible impervious side walls 8 and 9 joined along

their marginal edges by connecting elements 10 which extend from the solid heel 11 completely around the structure, thus presenting a chamber or cavity 12.

Formed in the center of the heel portion 11 to extend longitudinally is an opening 13, enlarged as at 14 between its ends and communicating between the chamber 12 and outside of the heel.

Fixed in the enlarged opening 14 is an air inlet valve 15 of common construction, through which air may be pumped or otherwise entered so as to inflate the chamber 12 to any desired extent prior to entering the sole within the shoe.

If it is wished to deflate the sole, this is accomplished in the usual manner by depressing the valve plunger rod 16 as will be understood.

All parts, except the valve, are preferably made of rubber and integrally formed that no joints can open and relieve the air compressed in the chamber, and, as will be seen, the sole is self conforming to the shape of the shoe sole and the foot resting upon it without exertion on part of the operator.

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

1. A pneumatic sole for shoes comprising a pliable body fitting the shoe, said body being hollow except at the heel portion, and an air valve extending longitudinally through the heel adapted to admit air to the space in the hollow portion of said body.

2. An inner sole for shoes comprising an integral rubber body shaped to fit the shoe, said body being solid at the heel and chambered throughout the remaining portion, and an air inlet valve fixed in said heel portion extending lengthwise and centrally thereof above the lifts and adapted to deliver air to the mentioned chamber.

In witness whereof I have affixed my signature.

LUDWIG GLANZER.