Sept. 15, 1959 M. MENDOZA 2,904,724

SHOE SOLE

Filed July 19, 1956

Fig. 1.

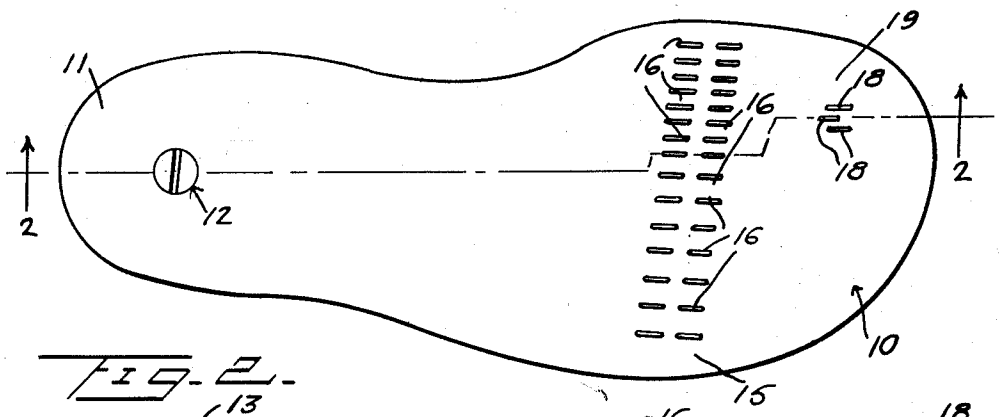


Fig. 2.

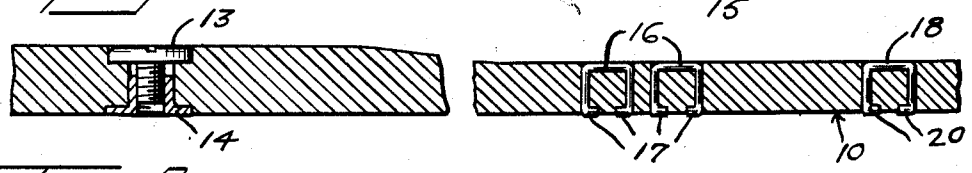
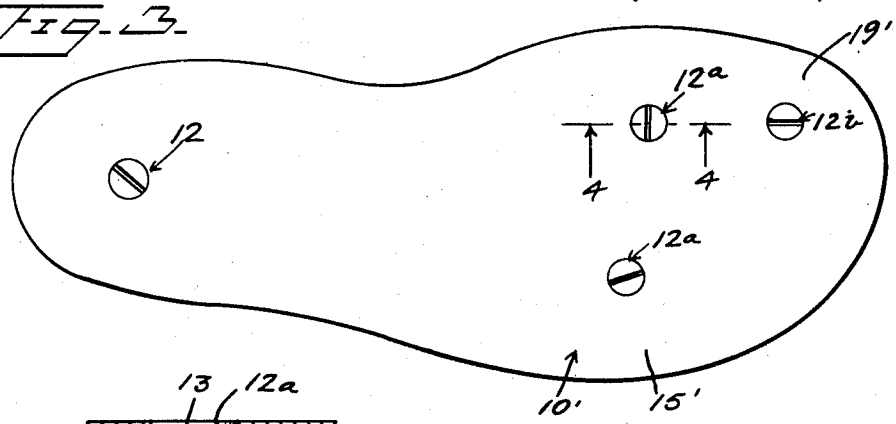


Fig. 3.



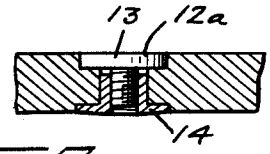


Fig. 4.

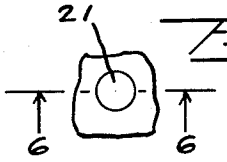


Fig. 5.

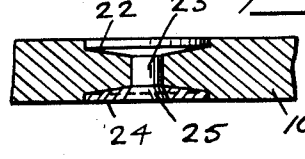


Fig. 6.

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SHOE SOLE

Manuel Mendoza, Port Isabel, Tex.

Application July 19, 1956, Serial No. 598,870

1 Claim. (Cl. 317—2)

The present invention relates to shoe soles, and more particularly to shoe soles having contact members extending therethrough to eliminate the natural insulation qualities of the sole.

The primary object of the invention is to provide a shoe sole having means extending therethrough connecting the foot of the wearer directly to the earth's surface eliminating the insulation normally provided by the shoe sole.

Another object of the invention is to provide a shoe sole of the class described above which is inexpensive to manufacture, durable in service, and completely effective in its action.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings, in which:

Figure 1 is a plan view of a shoe sole incorporating the invention.

Figure 2 is an enlarged fragmentary longitudinal section taken along the line 2—2 of Figure 1, looking in the direction indicated.

Figure 3 is a plan view of a modified form of the invention.

Figure 4 is an enlarged fragmentary vertical cross-section taken along the line 4—4 of Figure 3, looking in the direction indicated.

Figure 5 is a fragmentary plan view of a modified form of contact element for a shoe sole.

Figure 6 is an enlarged fragmentary vertical cross-section taken along the line 6—6 of Figure 5, looking in the direction indicated.

It is an established fact that the earth has both electrical and electro-magnetic waves extending therethrough and emanating therefrom, and it is believed that contact of the human body with these waves provides a beneficial effect on the body causing a healthy condition to be established. The present invention is intended to assist in the establishment of the contact between the human body and the earth so as to permit the action of the waves present in the earth to affect the body.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference numeral **10** indicates generally a shoe sole constructed in a normal manner from normal materials such as leather, plastic, rubber, fiber, or combinations thereof, all of which have a dielectric or insulating quality of varying amounts.

The sole **10** is provided centrally of the heel portion **11** thereof with a contact element, generally indicated at **12**, and comprising a threaded bolt **13** and a cooperating tubular and headed threaded nut **14** which is adapted

to engage over the threaded bolt **13**, as best seen in Figure 2, so as to clamp the contact element **12** to the heel portion **11** of the sole **10**.

Forwardly of the heel portion **11** in that portion of the sole **10** indicated at **15** commonly supporting the ball of the foot, there is provided a plurality of staples **16** which penetrate the sole **10** and are flanged as at **17** to grip the sole **10** to prevent the removal of the staples **16** therefrom. The staples **16** are formed of electrically conducting material such as copper, brass, or the like, and provide an electric contact through the sole **10**.

A plurality of staples **18** are positioned under the great toe area **19** of the sole **10** and extend through the sole **10** being locked therein by flanges **20** similar to the flanges **17** of the staples **16**. The staples **18** are likewise formed of electric conducting material such as copper or brass.

The contact element **12** is similarly formed of copper or brass and is adapted to conduct electricity through the sole **10**.

Referring now to Figure 3, wherein a modified form of the invention is disclosed, a sole, generally indicated at **10'** is provided with a contact element **12** identical to the contact element **12** in the preferred form of the invention illustrated in Figure 1, and has a pair of contact elements **12*a*** secured to the sole **10'** under the portion **15'** normally carrying the ball of the foot. A contact element **12*b*** is positioned in the great toe area **19'** of the sole **10'** and is adapted to have the great toe of the foot of the wearer in contact therewith. The contact element **12*a*** and the contact element **12*b*** are identical in every respect to the contact element **12** and each have a bolt portion **13** and tubular nut portion **14**, as shown in Figure 4.

In the modification illustrated in Figure 5, a rivet **21** is provided as an alternate type of contact element to replace the contact elements **12**, **12*a*** and **12*b*** in the shoe sole **10'**. The rivet **21** is provided with a head **22** engaging one side of the sole **10''**, a shank **23** extending through the sole **10''**, and a washer **24** engaged over the opposite side of the shoe sole **10'** and having the outer end **25** of the shank **23** riveted thereto as illustrated in Figure 6.

Each of the elements illustrated in Figures 1, 2 and 6 provides an electrical contact through the sole of the shoe so that the foot of the wearer can be in contact with the wave energy of the earth's surface.

Having thus described the preferred embodiments of the invention, it should be understood that numerous additional structural modifications and adaptations may be resorted to without departing from the scope of the appended claim.

What is claimed is:

A shoe sole comprising an elongated dielectric panel having a heel supporting portion, a ball supporting portion and a great toe supporting portion, an electrical contact formed from a headed bolt extending through said panel medially of said heel supporting portion with the head of said headed bolt in position to contact the heel of the wearer, a tubular nut threaded on to the headed bolt from the underside thereof clamping said headed bolt in position in said panel, a plurality of electric contacts formed of generally U-shaped staples having a pair of spaced apart parallel legs integrally connected by a perpendicularly extending bight portion with said legs extending through said sole at said ball supporting portion,

end portions on the ends of said legs opposite to said bight portion perpendicularly inwardly offset with respect to said legs, said bight portions engaging the upper surface of said panel and said offset end portions engaging beneath said panel to lock said contacts to said panel, and a plurality of additional contacts extending through said panel in said great toe supporting portion with said additional contacts being identical to the contacts extending through the ball supporting portion of said panel.

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