Aug. 1, 1950 R. W. FATHAUER 2,517,472

SANDAL WITH HINGED WOODEN SOLE WITH SPACER RIVETS THEREIN

Filed Dec. 5, 1947

Fig. 1.

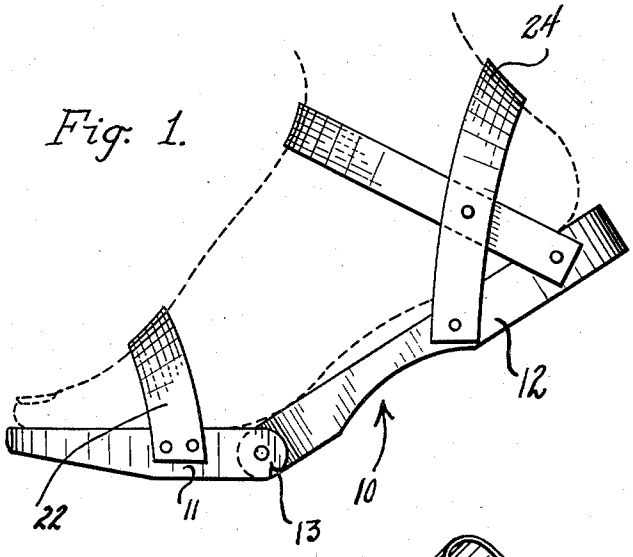


Fig. 2.

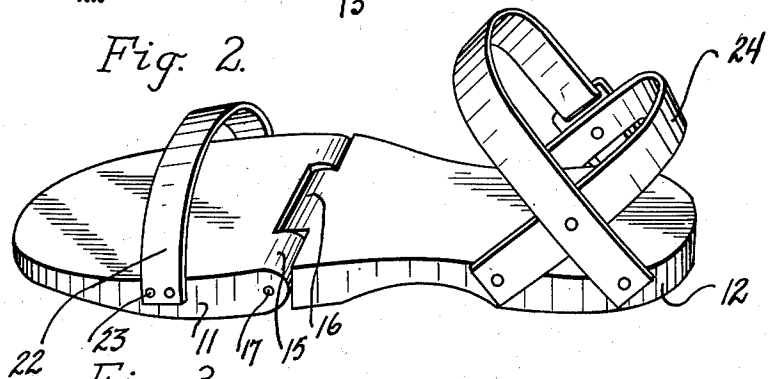


Fig. 3.

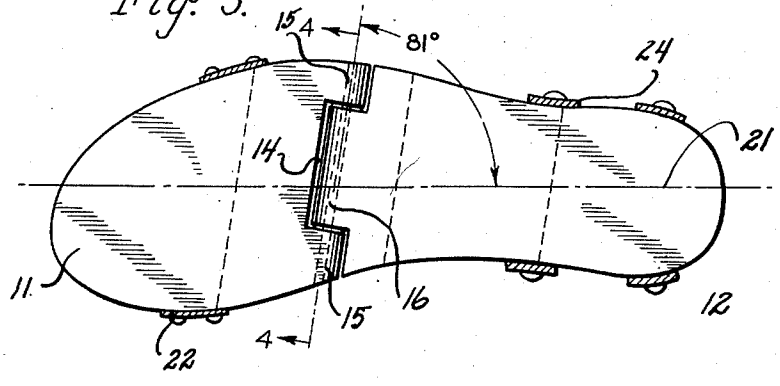
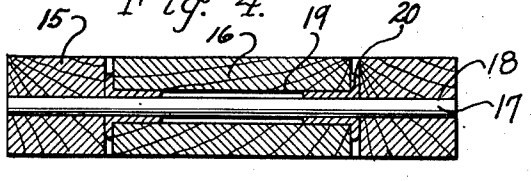


Fig. 4.



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Patented Aug. 1, 1950 2,517,472

UNITED STATES PATENT OFFICE

2,517,472

SANDAL WITH HINGED WOODEN SOLE WITH SPACER RIVETS THEREIN

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Application December 5, 1947, Serial No. 789,991

1 Claim. (Cl. 36—11.5)

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The present invention relates to footwear, and more particularly has reference to footwear of the sandal type having a sole including hingedly connected front and rear sections. While the sandal finds special application for use at beaches for bathing purposes, it is, of course, to be understood that it is of broader application.

Attempts have heretofore been made to provide hingedly connected sandals, but the articles have not been entirely satisfactory. There have been two important objectionable features to these prior sandals. In the first place, the hinge joint between the two sections has been so made that it tends to become clogged with dirt, sand, and similar foreign material, thereby rendering the hinge inoperative for the purpose intended. In the second place, and probably the most important objection, is the fact that the hinge connection has been at right angles to the center line of the sandal which makes wearing of the shoe uncomfortable and, in addition, may prove injurious to the bone structure of the foot.

Accordingly, an essential object of my invention is to provide a sandal of the character described which is not open to the above and other undesirable features.

Another object of my invention is to provide a sandal having a sole, including a front section, a rear section, and a hinge construction connecting the sections, the angle of the hinge coinciding with the natural angle of the foot.

And yet a further object of my invention is to provide a hinge construction for sandals of the character described wherein the angle of the hinge with respect to the center line of the sandal is approximately 81 degrees.

Yet a further object of my invention is to provide a wooden sandal wherein the front and rear sections are interconnected by means of a hinge construction wherein there is no wood to wood contact during pivotal action of the hinge.

Still a further object of the present invention is to provide a two-part sandal interconnected by a hinge, the angle of which is approximately 81 degrees with respect to the center line of the sandal and having a toe strap which extends laterally of the shoe in parallel relation to the angle of the hinge.

To accomplish the above and other advantageous objects, the invention comprises a sole or surface-engaging member having a front section and a rear section. The respective sections are connected by means of a hinge which extends at an angle of substantially 81 degrees to the center

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line of the sandal which is the approximate natural angle of the foot.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view in side elevation showing the hinging action of the sandal during the walking process.

Figure 2 is a view in perspective of the sandal.

Figure 3 is a bottom view of the sandal, and

Figure 4 is a sectional view taken along the line 4—4 of Figure 3, looking in the direction of the arrows.

As shown in Figure 2, the sandal comprises a sole 10, preferably made of wood or similar rigid material, including a front section 11 and a rear section 12. The sections 11 and 12 are hingedly connected, as indicated generally by the numeral 13.

The hinge connection is provided by slotting the rear edge of the front section 11, as shown at 14, forming spaced ears or extensions 15. The ears 15 are preferably rounded, as clearly shown in Figures 1 and 2, to eliminate any danger of binding, as will later be more fully set forth. The forward end of the rear section 12 is provided with an extension 16 which is also rounded, and the extension fits into the slot 14 beteen the ears 15. A metal hinge pin 17 extends through alined openings 18 and 19 in the extensions 15 and 16, respectively, for pivotally connecting the sections 11 and 12. To eliminate friction between the extensions 15 and 16, it will be noted that a tubular rivet 20 surrounds the pivot pin 17 adjacent the outer ends of the extension 16 and that the head of the rivet prevents contact between the extension 16 and the extension 15 on the front section 11. It will further be noted that the slot 14 and the extension 16 are so made as to provide for substantial clearance between the elements of the hinge 13. As a consequence, if sand or the like should enter the hinge joint, there is sufficient space between the parts to permit the sand to easily become dislodged. In addition, by rounding the extensions 15 and 16, there will be no binding action during pivotal movement of the hinge.

As perhaps best shown in Figure 3, the hinge

13 extends at an angle with respect to the center line of the sandal which is shown by the numeral 21. I have ascertained that the hinge angle should be substantially equal to the hinge joint of the foot so that during the walking operation, there will be no unnatural reflex action on the foot. More specifically, there has been ascertained that the angle of the hinge should be approximately 81 degrees, although a variance one degree plus or minus will accomplish the desired end.

The sandal is provided with a toe strap 22 which may be suitably secured to the sides of the front section by pins or the like 23. It should be noted that the strap 22 extends laterally of the front section 11 in parallel relation to the angle of the hinge 13 which, of course, provides for comfort in walking. The rear section 12 also carries a heel strap 24 which may be of the adjustable type.

It will be appreciated from the foregoing that I have provided a sandal of the hinge type which overcomes the objectionable features of sandals of this character. This is accomplished by having the hinge disposed at a critical angle with respect to the center line of the sandal and by eliminating wood to wood contact in the hinge joint. The sandal is simple in structural details, positive in operation and capable of being cheaply and easily manufactured.

I claim:

A wooden sandal comprising a sole having a front section and a rear section, an elongated slot provided in the rear edge of the front section, an extension on the front edge of the rear section adapted to be disposed within said slot, a hinge pin pivotally mounting said extension in said slot, a pair of flanged tubular rivets surrounding said hinge pin with the flange located between each end of the extension and each wall of the elongated slot thereby eliminating wood to wood contact, the said hinge pin being disposed at an angle of 81 degrees with respect to the center line of the sole and a toe strap extending laterally of and secured to said front section and being at an angle coinciding with the angle of the hinge pin.

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