Sept. 13, 1938. W. EASTHAM 2,130,271

ARTIFICIAL FOOT

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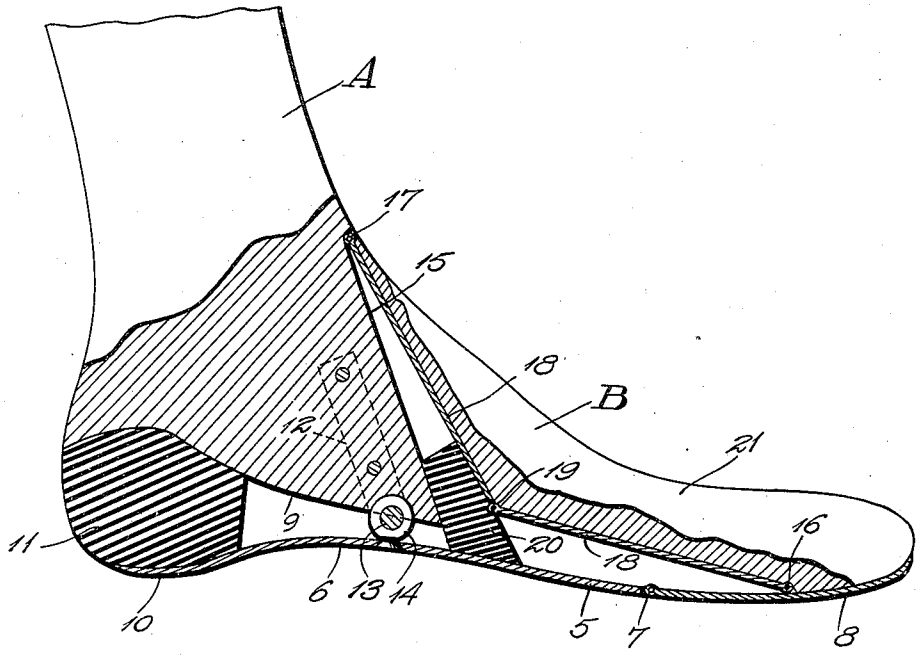

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ARTIFICIAL FOOT

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2 Claims. (Cl. 3—6)

The invention relates to an artificial limb and more especially to an artificial foot.

The primary object of the invention is the provision of a foot of this character, wherein the same in its association with the stump of an artificial limb will be susceptible of foot action simulating that of a natural foot in the wearing of a shoe and in this manner affording ease in walking by a user thereof.

Another object of the invention is the provision of a foot of this character, wherein the construction thereof is novel in its entirety and assures comfort and ease to a wearer in that proper toe motion or movement will be assured when in the act of walking while the heel of such foot is cushioned to afford a proper tread under ankle action set up in its use.

A further object of the invention is the provision of a foot of this character, which is simple in its construction, thoroughly reliable and efficient in operation, strong, durable, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawing, the view illustrates an artificial foot in side elevation and partly sectional construction in accordance with the invention.

Referring to the drawing in detail, A designates generally the lower portion or part of an artificial limb above the foot, the latter being indicated at B and only a portion thereof is shown.

The foot B constituting the present invention comprises a bottom tread section 5, preferably made from sheet metal, having a curvature 6 in conformity to the arch of the natural foot while hinged at 7 is a toe 8, being made from sheet metal and extends forwardly of the tread section 5, being slightly concavo-convex in formation characteristic of the toe area of the natural foot.

The lower end of the limb A is curvilinear at 9 in its formation while the tread section 5 at its heel end is slightly dished at 10 for the seating therein of a heel cushion 11 interposed between the dished end 10 and the curvilinear end 9 of the limb A.

The tread section 5 is pivotally connected with the lower end of the limb A, the latter having riveted thereto a pivoted bracket 12, its pivot 13 being journaled in a pivot bearing 14 fixed to the section 5 and located between the latter and the end 9 of said limb A so that the section 5 is assured of ankle motion in that it is allowed to turn or rock upon the pivot 13 during the action of walking or other similar exercise by the user of the artificial foot.

The limb A at the lower portion thereof has a forwardly inclined counterseat 15 while forwardly of the latter and pivoted at 16 and 17, respectively, to the toe part 8 and within the counterseat 15 in the lower end of the limb A is a double link 18, being made from two plate-like sections, these being hinged to each other at 19 at their meeting points while interposed between the double link 18 and the counterseat 15 in the lower portion of the limb A is a wedge-like resilient cushion member 20 confronting the hinge 19 and abutting the section 5 so as to absorb action of the double link 18 and maintaining it in a normal position as shown in the drawing. Thus the foot in its construction is susceptible under operation of imitating the foot activities of the natural foot.

Overlying the double link 18 is a pliable pad or filler 21 giving the proper fullness to the artificial foot in conformity with the contour of the natural foot.

What is claimed is:

1. An artificial foot comprising a sole plate having a hinged toe section, a leg member, means pivotally connecting said plate with the leg member rearwardly of the hinged toe section, a resilient cushion interposed between the leg member and said plate rearwardly of the pivotal means, a hinge having pivotal connections at opposite ends with the toe section and with said leg member, respectively, and a cushioning element wedged between the said hinge and the leg member forwardly of the said pivotal means, the said sole plate being provided with a seat for the resilient cushion.

2. An artificial foot comprising a sole plate having a hinged toe section, a leg member, means pivotally connecting said plate with the leg member rearwardly of the hinged toe section, a resilient cushion interposed between the leg member and said plate rearwardly of the pivotal means, a hinge having pivotal connections at opposite ends with the toe section and with said leg member, respectively, a cushioning element wedged between the said hinge and the leg member forwardly of the said pivotal means, the said sole plate being provided with a seat for the resilient cushion, and a filler superimposed upon said hinge and carried onto the toe section.

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