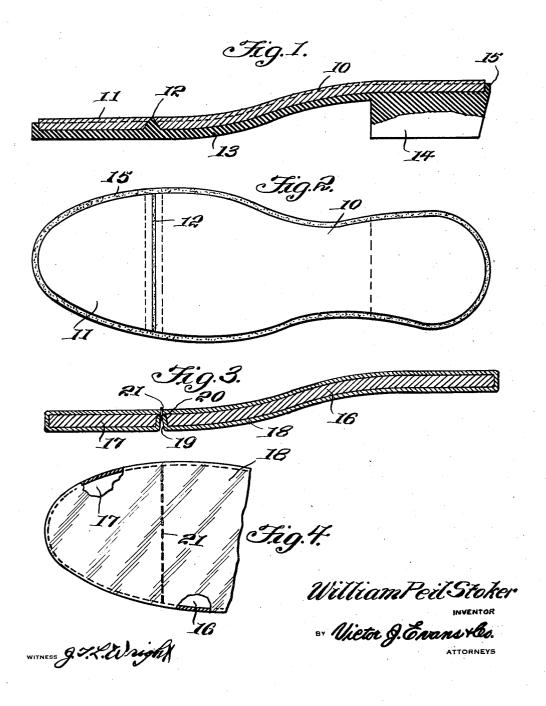
FOOTWEAR

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## UNITED STATES PATENT OFFICE

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## **FOOTWEAR**

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1 Claim. (Cl. 36-30)

This invention relates to footwear and has for an object to provide more particularly a sole for footwear, the sole being formed in two parts divided transversely to provide a heel, shank and ball portion in one piece and a toe portion in another piece, the two piece sole being united by rubber bonding material which forms a joint to permit bending or flexing at the toe portion to promote comfort, while the sole itself may be formed of wood, hardened plastic or other ma- 10 terial impervious to being deformed by stones or other articles so that protection is afforded the foot, while at the same time a minimum amount of rubber contacts the foot and thus eliminates rounding and touching the wearer's foot.

A further object is to provide a device of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily 20

get out of order.

With the above and other objects in view, the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being un- 23 derstood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part 30

of this specification:

Figure 1 is a longitudinal sectional view of a sole constructed in accordance with the invention.

Figure 2 is a top plan view of the sole shown in 35 Figure 1.

Figure 3 is a longitudinal sectional view of a modified form of sole suitable for slippers, canvas shoes and other footwear.

Figure 4 is a fragmentary top plan view of the 40

sole shown in Figure 3.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates the rear section and II the front section of a two piece sole, preferably formed of wood, hardened plastic or other rigid material. The rear section 10 and front section II are of uniform thickness and the rear section includes the heel, shank and ball of the sole in one integral piece, while the front 50 section II comprises the toe portion of the sole, both sections being separated transversely. The two sections of the sole are beveled at their confronting edges to form a triangular space hav-

the two sections and are connected together by a rubber bond of triangular cross section 12 extending between the confronting rear edge of the toe section II and front edge of the rear section 10 of the sole and projecting above the top face of the rubber sole. This rubber bonding material may be vulcanized or otherwise secured to the two sections of the sole and is of such characteristic as to be elastic and flexible to form a joint between the two sections of the sole adapted to bend, flex or yield to permit the sole to conform to movements of the foot in taking a step, without discomfort.

The bonding rubber material 12 may be cast, the usual discomfort produced by rubber sur- 15 moulded or otherwise formed as an integral unit with a protective out sole 13 which may be formed with an integral heel 14, if desired, the out sole and heel being recessed on the top face to receive the two sections 10 and 11 of the protective sole, the recess providing a flange 15 all around the edge of the protective sole to which flange may be secured, in any preferred manner, the footwear upper, whether it be of rubber,

leather, or other material.

A modified form of the invention is shown in Figure 3, suitable for use in connection with bedroom slippers, canvas shoes or the like. The modified sole comprises two sole sections 16 and 17 formed of wood, hardened plastic or other rigid material, the rear section 16 including the heel, shank and ball portion of the sole, while the front section 17 includes the toe portion of the sole. The two sections 16 and 17 of the protective sole are completely enclosed in a canvas envelope 18 having a loop 19 formed therein and disposed transversely between the rear edge of the toe section 17 and front edge of the rear section 16 of the protective sole. The bight or inner end 20 of the loop is secured to the upper side of the envelope by a line of stitching 21. The upper of the footwear may be secured to the envelope in any preferred manner.

In all forms of the invention it will be seen that a flexible joint exists between the two sections of the protective sole to permit the sole to conform to movements of the wearer's foot, while at the same time a minimum of rubber touches

the foot.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explana-

What is claimed is:

In footwear, a rigid sole including an integral ing its base in the plane of the bottom faces of 55 heel, shank, ball section, and a toe section spaced from the ball section, a rubber sole below the rigid sole, the rigid sole being recessed into the rubber sole inside the outer edge of the rubber sole to provide a securing flange all around the edge of the rigid sole for the attachment of a shoe upper, the confronting edges of the toe section and ball section being beveled to provide a triangular space having its base in the plane of

the bottom faces of the ball section and the toe section, and a rubber bond of triangular cross section in said space projecting above the top face of the bottom sole and permitting the toe section to yield independently of the ball section during movements of the wearer's foot in taking a step.

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