Oct. 5, 1948. H. M. PULVER 2,450,768

NONSKID ATTACHMENT FOR SHOES

Filed Dec. 20, 1946

Fig. 3

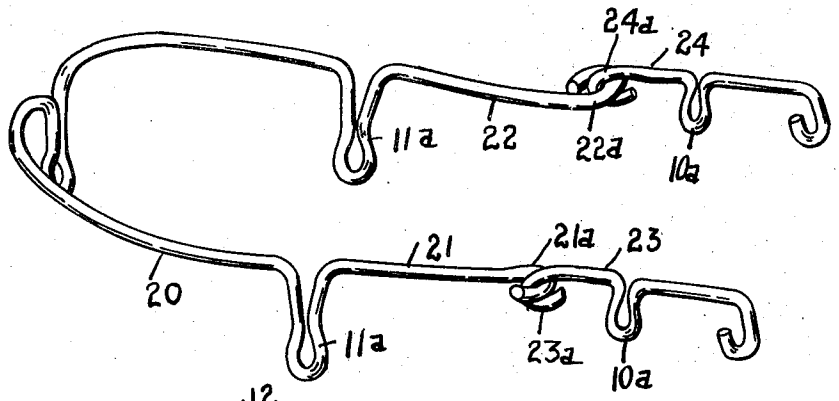


Fig. 2

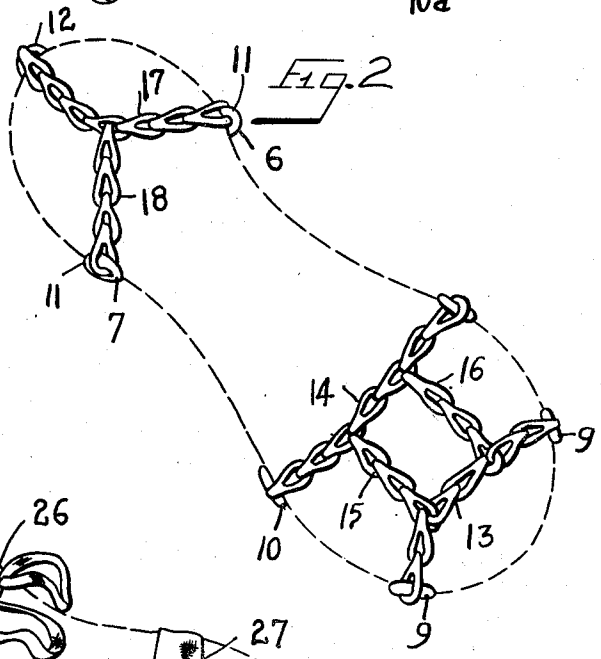
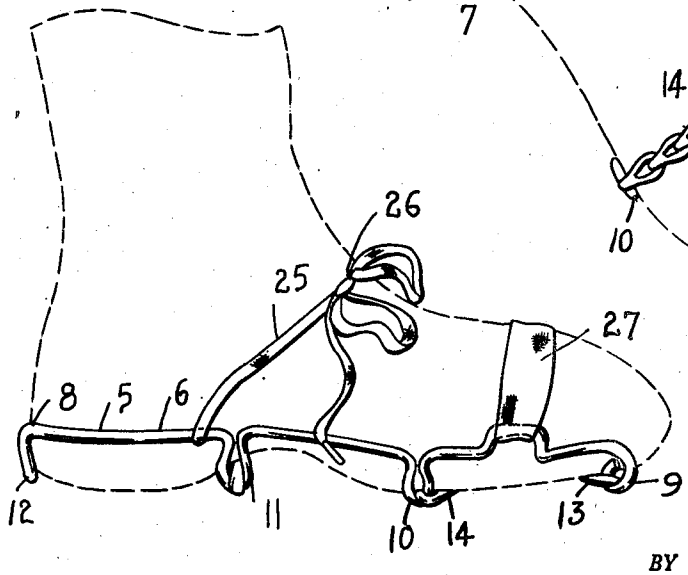


Fig. 1



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NONSKID ATTACHMENT FOR SHOES

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This invention relates to an improved attachment for shoes for either sex, and one of its objects is to provide a flexible flat link chain to engage the icy surface of the pavement and a frame constructed to fit against the sides of the shoe and its heel for holding the chain in place.

Another object of the invention is to provide the retaining frame with a forward section which is hinged thereto, so that no resistance will be offered to the bending of the foot in walking, the non-skid tread chain being connected to eyes formed in this frame.

With the above and other objects in view the invention comprises certain new and useful combinations and arrangements of parts, clearly described in the following specification and fully illustrated in the drawings, in which:

Fig. 1 is a side elevation showing the position of the frame on a shoe.

Fig. 2 is a bottom plan view thereof.

Fig. 3 is a perspective view of a modified form of the frame, showing a forward hinged section.

Referring to the drawings, which illustrate the practical embodiment of the invention, 5 designates a supporting frame, which is formed from wire and bent into a U-shaped form to provide right and left side bars 6 and 7, respectively, and the rear heel engaging bend 8.

Each side bar is formed with a forward terminal eye 9, and side eyes 10 and 11 spaced rearwardly from the terminal eye 9. The heel bend or part 8 is also formed with an eye 12.

A length of flexible chain 13 is connected at its ends to the terminal eyes 9, and another length of flexible chain 14 is connected at its ends to the eyes 10. The chain lengths 13 and 14 are connected to each other by means of the short chain lengths or sections 15 and 16, which are spaced apart from each other. The entire chain assembly is thus provided with two sections which extend across and under the shoe and two short sections which extend in the general direction of the length of the shoe sole. These chain sections are composed of flat links, which are looped through each other, so that the bottom sides of the links of the chain sections will be presented as tread elements to the pavement engaged by the shoe equipped with the safety attachment.

A chain section 17 is connected to the eye 11 of the side bar 6 and to the eye 12 of the heel bend 8, and a short chain section 18 is connected to the eye 11 of the side bar 7 and to an intermediate link of the chain section 17, so that all of the links of the two chain sections will be disposed under the heel of the shoe.

The flat and flexible chain sections effectively prevent skidding of a shoe over an icy pavement, and provide an inexpensive safety tread for any type of shoe.

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In Fig. 3 I show a frame having a main rear section 20 comprising side bars 21 and 22, which are hinged by the eyes 21*a* and 22*a* to the side bars 23 and 24 of the forward section, by their eyes 23*a* and 24*a*. The side bars 21 and 22 are formed with eyes 11*a*, corresponding to the eyes 11 of the side bars 6 and 7, and the side bars 23 and 24 are formed with eyes 10*a*, corresponding to the side bar eyes 10 of the side bars 6 and 7. The tread chain assemblies shown in Fig. 2 are mounted in place on the eyes of the three piece frame shown in Fig. 3, in a corresponding relation to that shown in Fig. 2.

The supporting frame is secured to the shoe by means of the flexible band 25, which is formed into a binding knot 26 to maintain the sides of the supporting frame in proper pressure engagement with the sides of the shoe.

It is understood that various changes in the details of construction, their combination and arrangement may be made, within the scope of the invention, as defined by the claims herein set forth.

Having described the invention I claim as new:

1. A non-skid safety attachment for shoes, comprising a frame of U-shaped form adapted to be placed against the heel and the sides of a shoe and formed of a wire having a plurality of holding loop eyes, a plurality of chains extending from one side of the frame to the other side thereof and connected to adjacent eyes thereof to provide a non-skid tread under the sole of the shoe, and chains connected with the sides of the frame and with the rear end thereof to form a non-skid tread under the heel of the shoe and means for attaching the side frame to the shoe of the wearer.

2. A non-skid safety attachment for shoes, comprising a frame of U-shaped form adapted to be placed against the sides of a shoe and against the heel thereof, said frame being formed of wire with the sides of the frame being provided with opposing loop eyes and the rear end of the frame having an eye, a flexible flat link chain connecting the sides of the frame and said rear end eye to provide a non-skid tread under the heel of the shoe, transverse flexible flat link chains connecting the sides of the frame, and chains connecting said transverse chains to each other and means for attaching the side frame to the shoe of the wearer.

3. A non-skid safety attachment for shoes, comprising a side frame of U-shaped form, said frame being formed of rigid wire with loops formed at the rear, sides and free end of the same, a wire side bar hinged to each end of the frame and loops thereof, each side bar having loop eyes thereon, transverse non-skid elements connecting said side bars to each other to provide a safety non-skid tread under the sole of the

shoe, a non-skid tread chain connected with the sides of the frame and the rear part thereof to provide a non-skid tread for the heel of the shoe, and means for attaching the side frame to the shoe of the wearer.

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