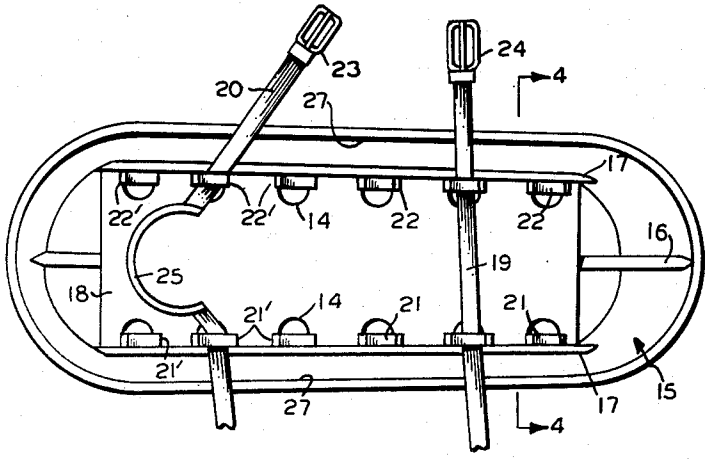
July 26, 1960 T. HUNSBEDT 2,946,599

SHOE ATTACHMENT FOR WINTER SPORTS

Filed Nov. 24, 1958

FIG.2



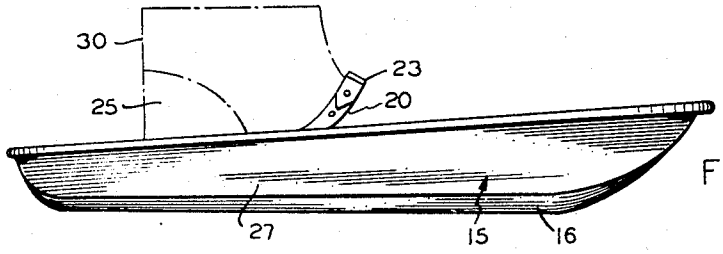


FIG.1

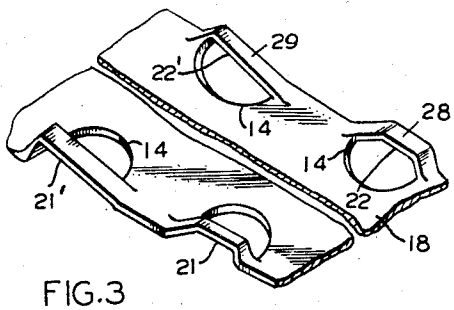


FIG.3

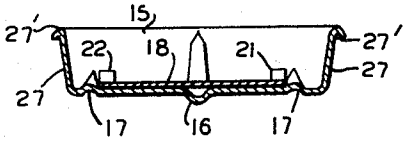
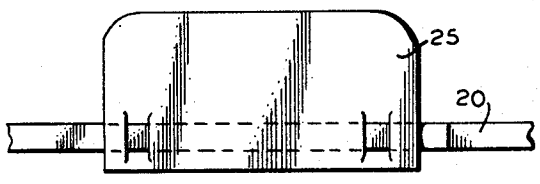


FIG.4

FIG.5



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SHOE ATTACHMENT FOR WINTER SPORTS

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Filed Nov. 24, 1958, Ser. No. 775,804

2 Claims. (Cl. 280—11.13)

The present invention relates to shoe attachments to enable the wearer to engage in various winter sports.

The principal object of this invention is to provide novel and improved articles of the character mentioned, for use as snow shoes, ice skates, skis and the like.

A further object thereof is to provide novel and improved construction for articles of the class set forth, affording easy adjustment for shoe size and which are easy and safe for use even by small children. Straps are provided which are openable so that these articles may be mounted and removed and particularly, there are means for attaching the straps and for automatically positioning them to maintain them untwisted and to avoid their slipping along the shoes, when said attachments are in use.

Another object thereof is to provide novel and improved shoe attachments of the kind described, which are simple in construction, reasonable in cost and efficient in carrying out the purposes for which they are designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For the practice of this invention, one form thereof may comprise an elongated sheet metal member of about twice the length and width of the shoe of the average user. Said member may have a perimetral upright flange so that it is in the form of a shallow receptacle whose front portion is preferably curved upwardly to be convex on its undersurface. The shoe sets about centrally within and along such member and adjustable straps are provided for attachment to the shoe, one strap across the vamp and the other straddling the back of the shoe and extending upwards across the top of the foot.

In the embodiment illustrated, there is a sheet metal plate welded onto the floor of the receptacle member which is really in the form of what may be deemed a shallow pan. Such floor plate is provided with a series of spaced loops or eyes along each lengthwise edge thereof; the loops along one edge being aligned with those along the other edge of said plate member. Of importance to note is that the loops for the forward strap are flattened so that their top elements are horizontal, while the loops for the hind strap are angular to comprise two legs each; the forward legs of such loops being sloped forwardly downwardly.

One belt is laced through one set of opposite forward loops and the second belt is laced through one set of opposite rearward loops, as the shoe size will require. The rear belt at center region may be associated with a saddle element to straddle the back of the shoe and serve as a heel stop or heel rest. One or more runner ribs are formed lengthwise by parallel depressions in the floor of the pan member.

A detailed description of the illustrated embodiment of this invention will now be given.

In the accompanying drawing forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

Fig. 1 is a lengthwise view showing a preferred embodiment of this invention. This article is of course used in pairs.

Fig. 2 is a top plan view of Fig. 1.

Fig. 3 is a fragmentary perspective view of the floor plate.

Fig. 4 is a section taken at line 4—4 in Fig. 2.

Fig. 5 shows the saddle member which serves as the heel stop and its associated strap which is shown fragmentary.

In the drawing, where one form of this invention is shown, the member designated generally by the numeral **15**, is a shallow elongated pan whose floor wall is depressed to have a centrally downwardly extending keel **16** and the upwradly extending longitudinal ribs **17**. A plate **18** is welded to or otherwise suitably secured on the floor of said member **15**, and along each longitudinal edge of said plate **18**, it is formed with a series of spaced loops through which the straps **19, 20** are laced as shown in Fig. 2. The forward loops **21, 22** are in alignment, so are the rearward loops **21', 22'**. All said loops may be struck from the metal of the plate member **18** and it is preferred that the plate have semi-circular cut-outs **14**. These cut-outs aid the lacing through of the straps, since the end of the strap when passed under and beyond a loop to the arcual edge of **14**, will be accessible to be gripped by the fingers and then pulled.

It is evident that the straps **19, 20** may be positioned through such sets of loops as is necessary to accommodate shoe size. The wearer's shoe sets atop the plate **18** and is between the two lines of loops. Strap encirclement is of course adjustable by suitable buckle means **23, 24** respectively. The hind strap **20** at its central region is provided with a saddle member which in use, straddles the back of the shoe **30** and serves as a heel stop. Such saddle member which is denoted by the numeral **25** may be a separate piece of pliable plastic, leather or other suitable material provided with slits to enable its mounting onto the strap **20** as shown, or it may be one piece with or otherwise suitably attached to said strap **20**.

Referring to Fig. 3 of the drawing, it is to be noted that the loops **21, 22** for the forward strap **19**, have their top portions flattened to be horizontal as indicated at **28**, so as not to cause a twist in the strap they hold. Each loop **21', 22'** for the hind strap **20**, makes a triangle with the plate **18**; said loops being bent so that each has two legs of such triangle it makes with said plate; the forward leg of such format being sloped forwardly downwardly as at **29**, in a direction perpendicular to the upward portions of the strap **20** when in use position, so as not to cause a twist in the strap they hold.

To enhance appearance, the side walls **27** of the pan member **15**, may taper towards the rear and to avoid sharp edges in motion, it is preferred that the mouth rim of such pan **15** shall be beaded as at **27'**. The pan **15** and its floor plate **18** may be cadmium plated or otherwise coated to be rustproof. Material and dimensions mentioned herein are chosen to suit and are merely suggestive.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiment shown herein shall be deemed illustrative and not restrictive and that the patent shall cover all patentable invention herein set forth; reference being had to the following claims rather than to the specific description herein to indicate the scope of this invention.

I claim:

1. In an article for use as an ice skate, snow shoe and ski, an elongated sheet member, an elongated plate

member secured atop the sheet member, to be positioned lengthwise against the underside of a shoe; said sheet member being wider than such shoe and having at least one longitudinal rib extending downwardly therefrom intermediate its longitudinal edges and the forward part of said sheet member being bent upwardly; said plate member being wider than the shoe and spaced from the edges of the sheet member, a pair of spaced loops formed from the material of said plate member and extending upwardly therefrom at such positions respectively that they receive the rearward portion of the shoe between them, a second pair of spaced loops similarly formed at such positions on the plate member respectively that they receive the forward portion of the shoe between them; the openings of the loops of each said pair, being opposite each other respectively, a saddle having straps extending, one from each side thereof; said saddle being adapted to straddle the back portion of the shoe and serve as a heel stop; each of said straps being laced through one of the loops which are at the rearward portion of the shoe, means on said straps to releasably secure them together to tightly hold the shoe on the plate member and a belt laced through the loops which are at the forward part of the plate member, having means to releasably secure spaced portions of said belt together to tightly hold the forward part of the shoe on the plate member; said plate having cut-out portions, one at each loop; each cut-out portion being laterally of a loop and extending in the direction of the oppositely associated loop; each of said cut-outs commencing from an edge of the plate member and ending beyond the loop it is at; each cut-out being under a loop and wider than the strap through such loop.

2. An article as defined in claim 1, wherein each of the rear loops have a portion thereof of a length at least equal to the width of a strap, sloping downwardly towards the toe end of the shoe.

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