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2,572,050

SKATE AND SHOE CONSTRUCTION

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Fig. 1.

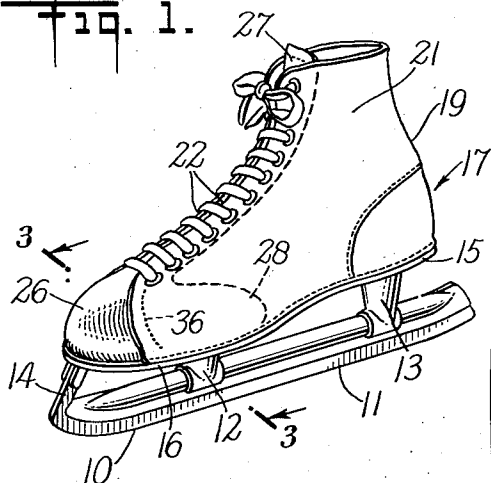


Fig. 2.

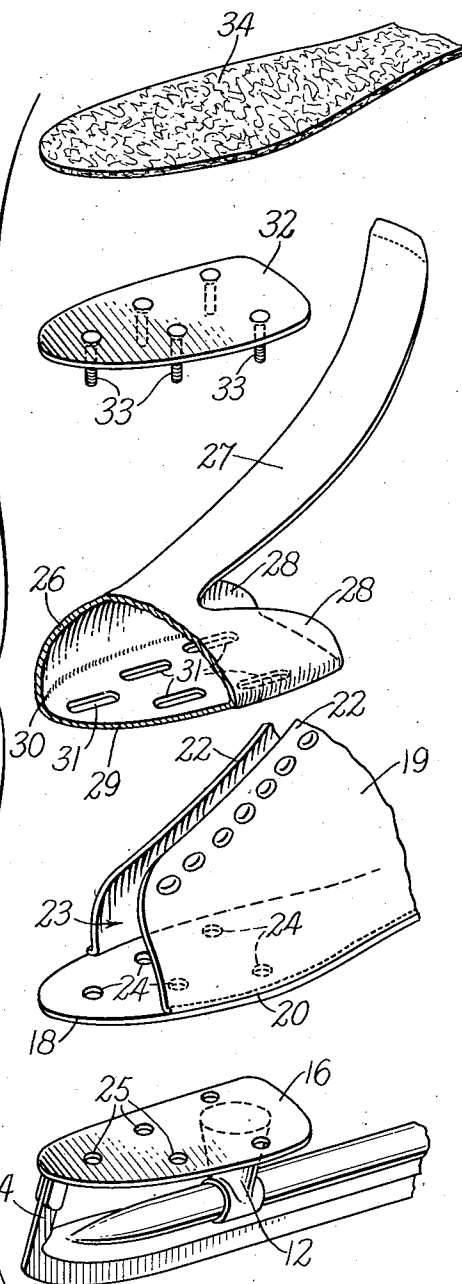
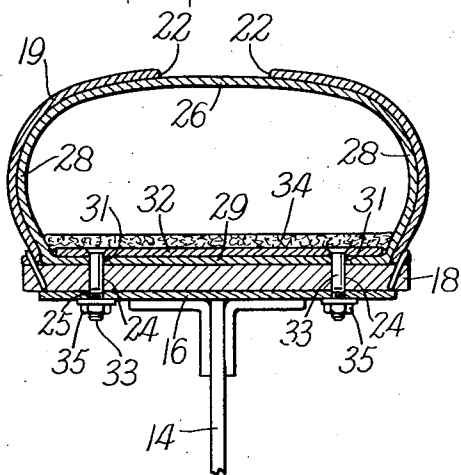


Fig. 3.



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SKATE AND SHOE CONSTRUCTION

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4 Claims. (Cl. 280—11.3)

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This invention relates to ice skates and more particularly to a skate and shoe construction.

It is an object of my invention to provide for the growth in size of children's feet in employing combination shoes and skates, more particularly ice skates. It is a known problem that the shoes attached to and worn with ice skates must fit properly, to provide comfort as well as support of the ankle in order that the hazard of this sport may be minimized. With the seasonal use of such items of sport being of comparatively short duration, the expense entailed in fitting children from one year to another is self-evident. It is accordingly contemplated by my invention to provide a shoe construction forming part of a skate, or specifically an ice skate, which affords the requisite support for the ankle in use in skating but which may be readily adjusted to fit the requirements of the growth of the foot.

It is an object of my invention to provide ice skates of combined shoe and skate construction to be adjustable to various sizes of children's, men's and women's feet within a wide range of foot sizes.

It is further contemplated by my invention to provide a combination ice skate and shoe which will make possible a proper accommodation of the shoe to the foot of the wearer, minimizing the number of shoe sizes which a shopkeeper or rink operator is required to store, and which will permit accommodation to fit the foot of the wearer, without sacrificing the requirements of this article of sport with regard to rigidity, comfort and safety.

Still more particularly, it is an object of my invention to provide a shoe construction and combination skate which will effect substantial economies.

To attain these objects and such further objects as may appear herein, or be hereinafter pointed out, I make reference to the accompanying drawing forming a part hereof, in which—

Figure 1 is a perspective view showing a shoe and ice skate in accordance with my invention;

Figure 2 is an exploded perspective view showing the various essential parts entering into the construction;

Figure 3 is a fragmentary magnified sectional view taken on the line 3—3 of Figure 1.

Making reference to the drawing, in accordance with my invention, I show an ice skate 10 having a runner blade 11 supported from the pedestals 12 and 13 and the extension support 14 for the heel plate 15, and sole plate 16. In accordance with my construction, I provide a shoe 17 of the type generally known as a Blucher in which the sole 18 has affixed to it the upper 19, extending by stitches or other permanent means of attachment along the rim 20 to provide the ankle support 21 and the lacing portion 22. The lacing portion extends forwardly to provide an opening

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23 preferably well beyond the portion encompassing the ball of the foot of the wearer within range of sizes of feet.

The sole 18 is provided with a plurality of drill holes 24 complementarily positioned to the drill holes 25 in the sole plate 16 of the skate. The shoe associates a combination box toe 26 and tongue 27 having side wings 28 attached to the relatively rigid box sole 29 by stitching 30. It will be understood the details of the box construction with regard to reinforcing elements comprising various stiffened sheetings by heat yielding compositions or the like, is not here disclosed, since the stiffening of the toe box for adequate protection is not a part of this invention and is a known detail in the shoe art.

The box sole 29 is provided with a plurality of slots 31 which are generally located with regard to the apertures 24 and 25 in the upper sole 18 and skate sole plate 16 to transversely align the same to allow for a longitudinal variant, as will appear hereinafter.

A clamping plate 32 of sheet metal has affixed to it the heads or ends of a plurality of bolts 33 on its end surface, as by riveting, welding or the like. The position of the bolts 33 on the plate 32 is complementary to the apertures 24 and 25, previously mentioned. The shape and size of the clamping plate 32 conforms generally to the box sole 29.

Superimposed upon the sole 18 and the clamping plate 32, I provide an insole 34 of felt or similar material. This insole is removable and is variable in size, as will appear hereinafter.

With the parts thus provided, the skate shoe is completed by nesting the box 25 within the sole upper so that the wings 28 are fully overlapped by the shoe upper. The bolts 33 are then aligned through the group apertures 31, 24 and 25, respectively, after which the nuts 35 are threaded on the bolts 33. Suitable spring washers or other friction means may be employed to keep the bolt nuts under tension or, if desired, rivets may be used instead of the bolts which may be temporarily affixed in position.

With the construction assembled partially, the box 26 may be slid longitudinally of the shoe upper to provide a variability in the length of the skate shoe to fit the individual wearer, after which the nuts 35 are tensioned and the shoe upper may be laced over the wearer's foot. The overlapping of the box shoe upper 22 with the wings 28 affords all the rigidity of support as may be required for a properly fitting skate shoe, in view of the rigid spacing afforded by the blade 11 and the supports 12 and 13.

By the construction provided, with no attachment between the box and the upper other than by the overlapping arrangement, a variability of size is afforded for the skate wearer so that as

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a child's foot grows, the adjustment may be made to fit the foot without requiring complete replacement. Optionally, a tacking stitch 36, shown in dotted line, may be affixed by an attendant, if desired, where an adjustment has been made to fit the particular requirements of the wearer.

It will be observed that by the construction which I have provided, sporting goods shops may retain a minimum number of shoe sizes in stock to adjust and fit the shoe upper to the customer's foot at the time of purchase. Likewise, rink operators who are accustomed to have skates available for rental may minimize their stock requirements for size without sacrificing proper adjustment or fit of shoe to the wearer.

By the construction which I have provided, substantial economies may be effected in this item of apparel and sport.

It will be understood that while I have described my invention in connection with an ice skate, it may likewise be applicable to roller skates, and similar sporting appliances in which a shoe forms a member.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is:

1. In a skate shoe having in combination a continuous outsole extended uninterruptedly between the heel and toe end and to which is attached a shoe upper and quarter as one part, the upper material being directed to provide side parts and front closure edges and being extended from the heel to substantially adjacent the forward toe end of the outsole, a shoe vamp having a box toe and box sole attached to each other and mounted with the sole thereof overlapping the outsole, one of said soles having elongated passages extended in parallelism with the length of the sole, the other of the soles having passages arranged transversely of the sole in a complementary position to the passages of the first sole, and tie members selectively engaging the passages of said soles to unite the vamp to the outsole along the length of the outsole, with the side parts and closure edges overlapping the vamp variably to accommodate the shoe parts to each other and, during the life of the shoe permit change of the shoe size to take care of the foot growth.

2. In a shoe having, in combination, a substantially continuous outsole extended uninterruptedly between the heel and toe end and to which is attached a shoe upper and quarter as one part, the upper material being directed forwardly to provide side parts and front closure edges and being extended substantially adjacent the toe end of the outsole, a shoe vamp having a toe box and box sole attached to each other and forming a second part with the soles thereof overlapping, the sole of one of said parts having a series of elongated passages lengthwise of the sole and in parallelism to each other, the other of the soles having passages arranged transversely of the sole in a complementary position to the passages of the first sole, a tie plate having mounted thereon tie bolts, specially positioned with respect to the series of said passages to pass through complementary passages in the sole elements to unite the second part to the first part along the length of the outsole, with the side parts and closure edges overlapping the vamp variably to accommodate the shoe parts to each other and during the life of the shoe to permit change of the shoe size to take care of the foot growth.

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3. In a shoe having, in combination, a substantially continuous outsole extended uninterruptedly between the heel and toe end and to which is attached a shoe upper and quarter as one part, the upper material being extended to produce side parts and front closure edges and being to substantially adjacent the toe end of the outsole, a shoe vamp having a toe box to which is attached a box sole and comprising a second part overlapping the outsole, the sole of the second part having a series of elongated passages in parallelism to each other and extended lengthwise of the sole, a tie plate having tie members arranged transversely in complementary position to said passages, the first sole being perforated with passages in position complementary to said tie members to have the tie members pass through complementary passages in the sole elements, whereby the plate may bind the second part to the first part along the length of the outsole, with the upper, side parts and closure edges overlapping the vamp variably to accommodate the shoe parts to each other and during the life of the shoe permit change of the shoe size to take care of the foot growth.

4. A skate shoe, having, in combination, a skate wherein the skate shoe consists of an outsole to which is attached a shoe upper and quarter to provide the shoe upper material which is extended from the heel to adjacent the toe end of the sole, and having side parts and front closure edges, a shoe vamp having a toe box and box sole attached to each other overlapping the outsole of the upper, one of said soles having a series of passages in parallelism to each other along the length of the shoe, the other one of said soles having passages complementarily positioned transversely of the sole, a tie plate carrying tie members complementarily positioned to the second series of passages, the skate having sole and heel supporting plates mounted on the skate blade, one of said skate plates having a plurality of passages complementarily positioned to said tie members on said tie plate, the vamp sole and outsole being positioned between the tie plate and the skate plate so as to unite the vamp to the shoe upper along the length of the outsole in a variably selected position, with the upper, side and front closure edges overlapping the vamp variably to accommodate the shoe parts to each other and to sandwich the outsole between said tie plate and the skate plate and, during the life of the shoe, change the shoe size to take care of the foot growth, the selected position of the shoe parts to each other being rigidified by union of the tie members of the plate to the frame of the skate.

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