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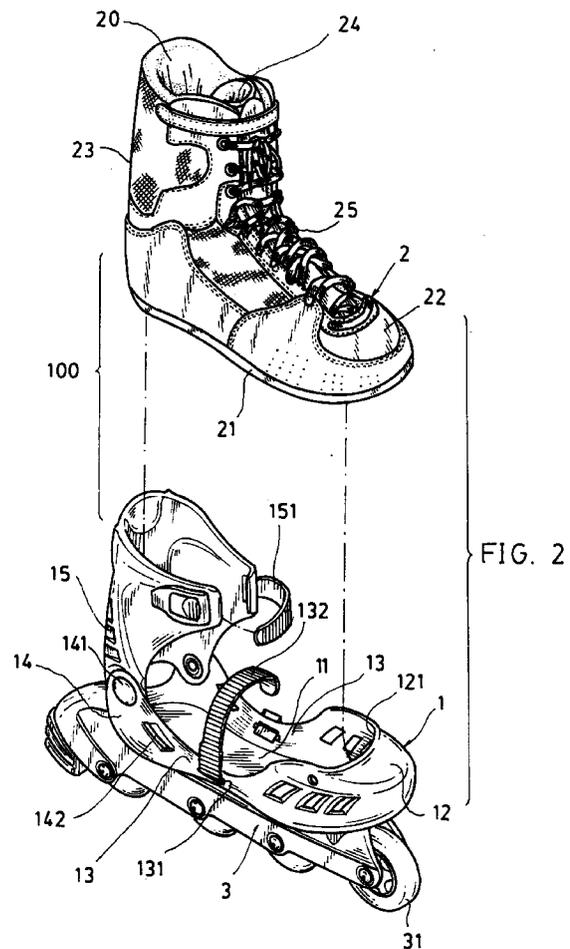
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(54) Mother-and-daughter shoe means

(57) A mother and daughter shoe includes: a mother shoe (1) secured on a foot sporting article (3) such as a roller skate and having a toe box portion (12) and a rear cuff (15) respectively formed on a front and rear portion of a basic sole (11) of the mother shoe (1); and a daughter shoe (2) integrally formed with soft, flexible and shock absorbable elastomeric materials, and snugly engageably fitted into the mother shoe (1) for manipulating the foot sporting article (3) or detachably removable from the mother shoe (1) for multiply serving as a ski boot, a snow boot or a shoe for walking or for climbing a mountain.



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Description

The present invention relates to a shoe means.

U. S. Patent 5,357,695 to the same inventor of this application discloses an interchangeably assembled shoe including a sole mounted on a foot sporting article such as a roller skate, plural different instep members (4) detachably secured to the sole, a lining (5) inserted in the shoe, a plurality of buckle means (7) for fastening the shoe on a wearer's foot, and the other relevant elements for forming the assembled shoe.

However, such an assembled shoe has the following drawbacks when trying for multiple uses:

1. When the shoe provided with the lining (5) and the instep member (4, 4a, 4b) as shown in Figures 1 - 4 of the U. S. Patent 5,357,695 is removed from a wearer's foot when not for skating, he or she should wear another shoe for walking or taking a rest, causing inconvenience for the wearer.

2. Even a wearer's foot already worn with a footwear may still be fitted into the assembled shoe as shown in Figure 4 of the U. S. Patent 5,357,695 so that he or she may directly walk by wearing the original footwear (S). However, such a footwear (S) already worn on a wearer's foot can not be made to be so thick such as lined with thick foam or cushioning pad in the footwear since the footwear must be inserted into the narrow toe box member (3) on the sole (1) and will also be limited by the side flaps (14) provided for fastening the instep member (4c). The footwear (S) as shown in Figure 4 is so short as lacking of tendon protection and is not suitable to be a ski boot or snow boot for skiing or walking on the snow area. If trying to wear a conventional ski boot into the assembled shoe (100), the thick layer of the ski boot can not be fitted into the toe box member (3) and the side flaps (14) secured with the instep member (4c) and buckle means (7) of the conventional assembled shoe.

The present inventor has found the drawbacks of the conventional assembled shoe and invented the present mother-and-daughter shoe for multiple uses.

According to the present invention, there is provided a mother and daughter shoe including: a mother shoe secured on a foot sporting article such as a roller skate and having a toe box portion and a rear cuff respectively formed on a front and rear portion of a basic sole of the mother shoe; and a daughter shoe integrally formed with soft, flexible and shock absorbable elastomeric materials, and snugly engageably fitted into the mother shoe for manipulating the foot sporting article or detachably removable from the mother shoe for multiply serving as a ski boot, a snow boot or a shoe for walking or for climbing a mountain.

The present invention will be further described with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of the present invention;

Figure 2 is an illustration showing exploded elements of the present invention;

Figure 3 is a sectional drawing of the daughter shoe of the present invention; and

Figure 4 is an illustration when using the present invention to be a ski device.

As shown in Figures 1 - 3, a preferred embodiment of the mother-and-daughter shoe means 100 of the present invention comprises: a mother shoe 1 securable on a foot sporting article 3 such as a roller skate having wheels 31 with in-line linear arrangement mounted under a chassis of the roller skate 3; and a daughter shoe 2 snugly engageably fitted into the mother shoe 1 for playing or manipulating the foot sporting article 3, and detachably removable from the mother shoe 1 for serving a footwear for a ski boot, a snow boot or any footwear for walking use or for climbing a mountain.

The foot sporting article 3 may be a roller skate, an ice skate (not shown) or a ski board 3a as shown in Figure 4, not limited in the present invention.

The mother shoe 1 for fitting the daughter shoe 2 therein includes: a basic sole 11 secured on the foot sporting article 3, a toe box portion 12 formed on a front portion of the basic sole 11 having a U shaped notch 121 recessed in the toe box portion 12 from a central portion of the basic sole 11 towards a front end portion of the basic sole 11 for well inserting a front portion of the daughter shoe 2, a pair of side edge portions 13 respectively formed on two opposite side portions of the basic sole 11 having a middle buckle strap 132 secured in at least a middle slot 131 cut out in each side edge portion 13 for holding a middle portion of the daughter shoe 2, a heel portion 14 formed on a rear portion of the basic sole 11, and a rear cuff 15 pivotally secured to the heel portion 14 by a pivot 141 and having an upper buckle strap 151 secured on the cuff 15 for fastening an upper portion of the daughter shoe 2.

The heel portion 14 is formed with at least a rear slot 142 therein for securing a buckle strap (not shown) for fastening a rear portion of the daughter shoe 2 on the mother shoe 1.

Each side edge portion 13 of the mother shoe 1 is recessed concavely between the toe box portion 12 and the heel portion 14 on the basic sole 11 without forcibly limiting a side portion of the daughter shoe 2 for a comfortable wearing of the daughter shoe 2 and an ergonomic manipulation of the shoe means 100 of the present invention.

The pivot 141 for securing the cuff 15 on the heel portion 14 of the shoe 11 may be formed as a rivet, or a coupling for securing the cuff 15 with the heel portion 14, not limited in the present invention.

The daughter shoe 2 includes: a sole 21 engageable with the basic sole 11 of the mother shoe 1, a vamp portion 22 formed on a front portion of the sole 21 to be

fitted into the toe box portion 12 of the mother shoe 1, a boot portion 23 protruding upwardly from a rear portion of the sole 21 to be generally perpendicular to the sole 21 and engageable with the rear cuff 15 of the mother shoe 1, a tongue member 24 formed on a middle portion of the daughter board 2 for protecting an instep portion of a wearer's foot having a lace 25 secured on the tongue member 24 for fastening the tongue member 24 on the wearer's foot, and a plurality of thermally insulative and cushioning liners 20 made of elastomer foams or the like embedded in the boot portion 23, the sole 21 and in the tongue member 24 for protecting the wearer's tendon, ankle and other foot portions.

The outer surface of the daughter shoe 2 may be further finished or covered with nylon fabric, cloth, or any decorative features or materials. Ventilation devices may also be provided in the shoe 2.

The present invention is superior to U. S. Patent 5,357,695 with the following advantages:

1. Once being tired when playing the foot sporting article 3 such as a roller skate, the daughter shoe 2 may be directly removed from the mother shoe 1 for taking a rest or for walking for convenient interchangeable uses.
2. The daughter shoe 2 including a boot portion 23 for protecting a wearer's tendon and ankle portions may be satisfactorily served for a ski boot or snow boot for multiple uses of the shoe.

The present invention may be modified without departing from the spirit and scope of the present invention.

Claims

1. A mother-and-daughter shoe means comprising:

a mother shoe (1) securable on a foot sporting article (3), and including a basic sole (11), a toe box portion (12) formed on a front portion of the basic sole (11), and a rear cuff (15) pivotally secured on a heel portion (14) formed on a rear portion of the basic sole (11); and a daughter shoe (2) integrally formed with soft flexible and shock absorbable materials and snugly engageably fitted in the mother shoe (1) for manipulating the foot sporting article (3), and said daughter shoe (2) detachably removable from said mother shoe (1) for serving as a shoe selected from the group consisting of a ski boot, a snow boot and a shoe for walking and climbing mountain.

2. A shoe means according to Claim 1, wherein said mother shoe (1) includes: the toe box portion (12) having a U-shaped notch (121) recessed forwardly from a central portion of the mother shoe towards a

front end of the basic sole (11) for well inserting a front portion of the daughter shoe (2) in said toe box portion (12), a pair of side edge portions (13) each recessed concavely between a front and a rear portion of the mother shoe (1) having at least a middle slot (131) formed in each said side edge portion (13) for securing a middle buckle strap (132) thereon for fastening a middle portion of the daughter shoe (2), and the rear cuff (15) pivotally secured to the heel portion (14) formed on the rear portion of the basic sole (11) by a pivot (141) and having an upper buckle strap (151) secured on the cuff (15) for fastening an upper portion of the daughter shoe (2) within said cuff (15) of said mother shoe (1).

3. A shoe means according to Claim 1, wherein said daughter shoe (2) includes: a sole (21) engageable with the basic sole (11) of the mother shoe (1), a vamp portion (12) formed on a front portion of the sole (21) to be fitted into the toe box portion (12) of the mother shoe (1), a boot portion (23) protruding upwardly from a rear portion of the sole (21) to be generally perpendicular to the sole (21) and engageable with a rear cuff (15) of the mother shoe (1), a tongue member (24) formed on a middle portion of the daughter board (2) for protecting an instep portion of a wearer's foot having a lace (25) secured on the tongue member (24) for fastening the tongue member (24) on the wearer's foot, and a plurality of thermally insulative and cushioning liners (20) embedded in the boot portion (23), the sole (21) and the tongue member (24) for protecting the wearer's tendon, ankle and the foot.

4. A mother-and-daughter shoe means comprising:

a mother shoe (1) including a basic sole (11) secured on an in-line roller skate (3), a toe box portion (12) formed on a front portion of the basic sole (11), and a rear cuff (15) pivotally secured on a heel portion (14) formed on a rear portion of the basic sole (11); and a daughter shoe (2) integrally formed with soft flexible and shock absorbable materials and snugly engageably fitted in the mother shoe (1) for manipulating the roller skate (3), and said daughter shoe (2) detachably removable from said mother shoe (1) for serving as a shoe selected from the group consisting of a ski boot, a snow boot and a shoe for walking and climbing mountain.

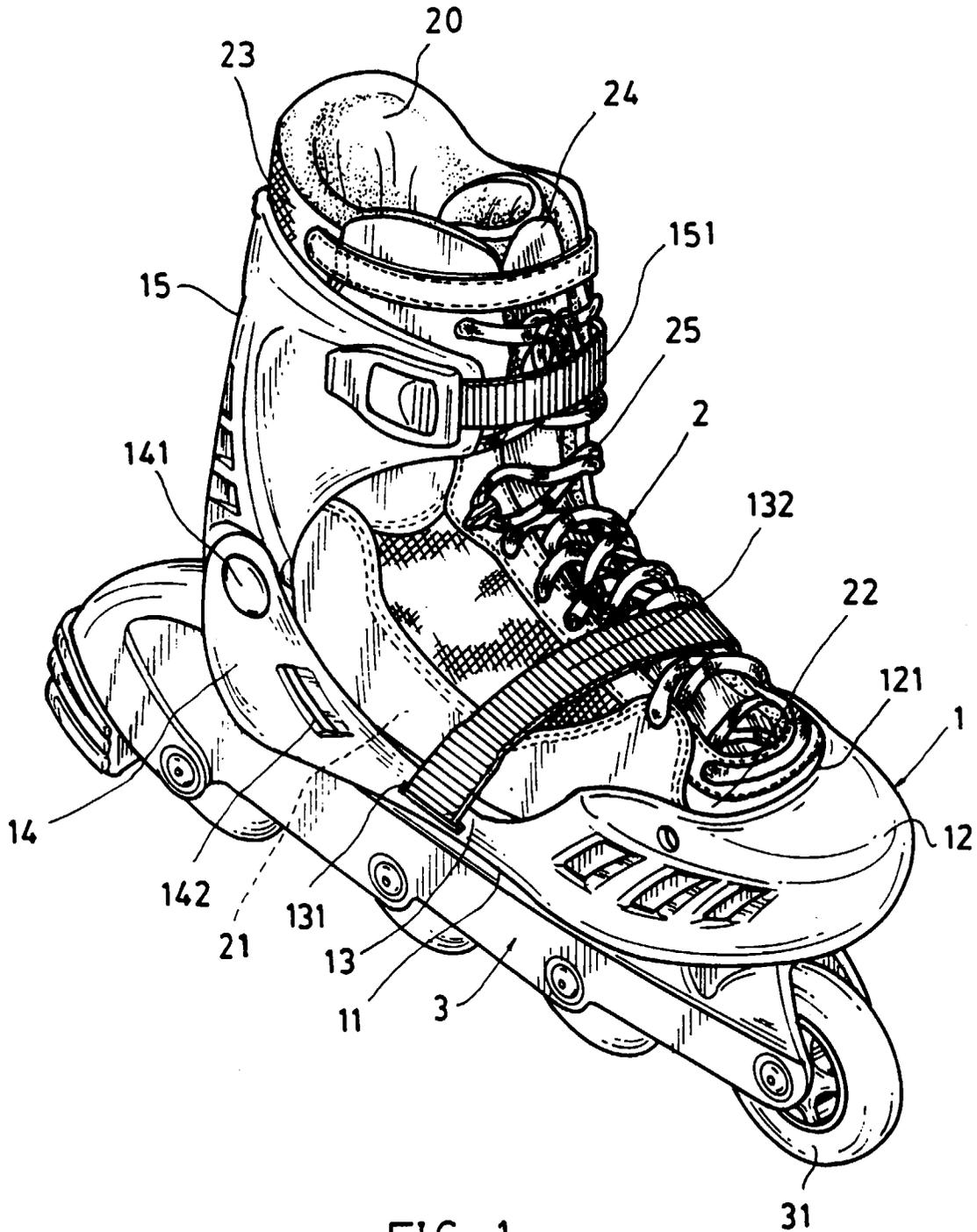


FIG. 1

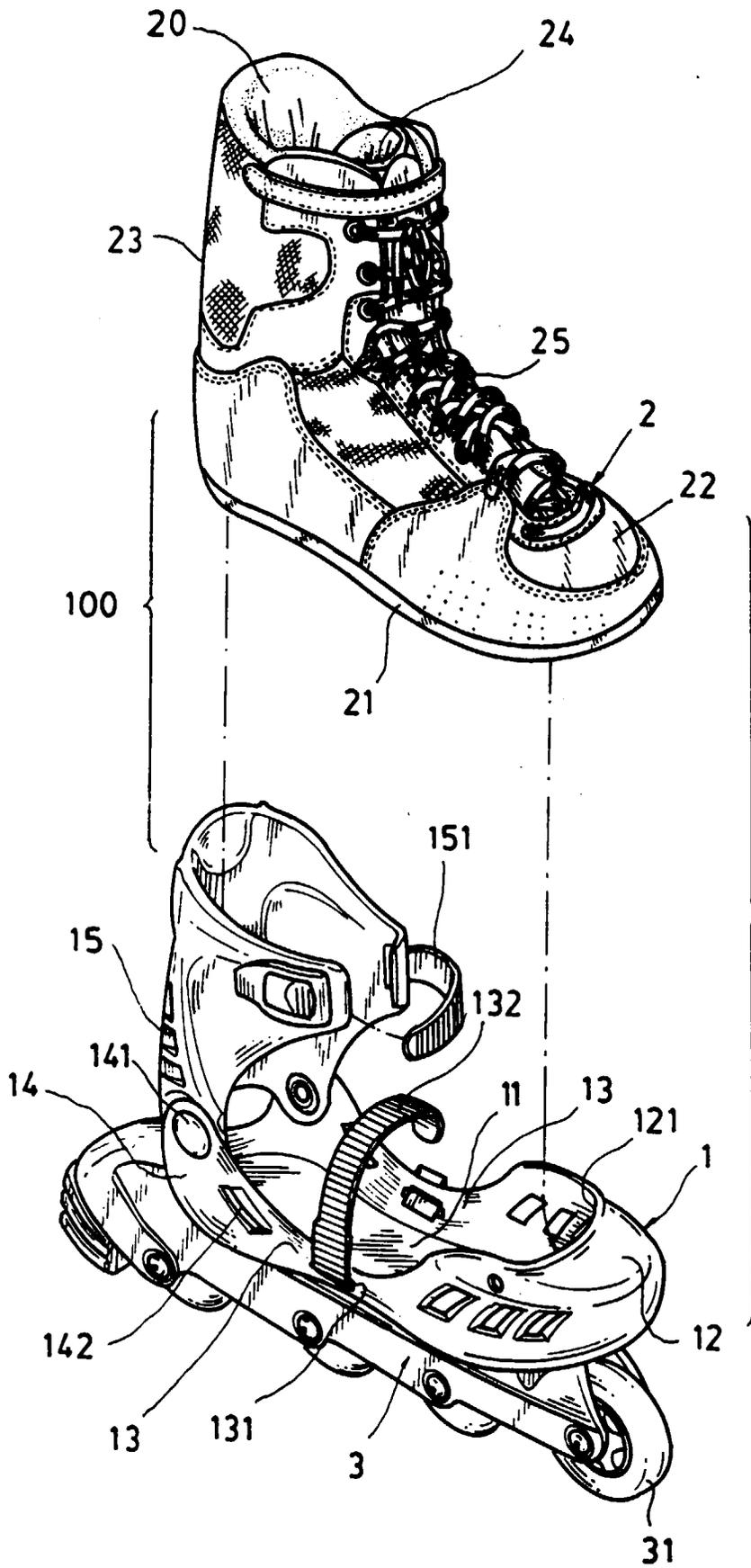


FIG. 2

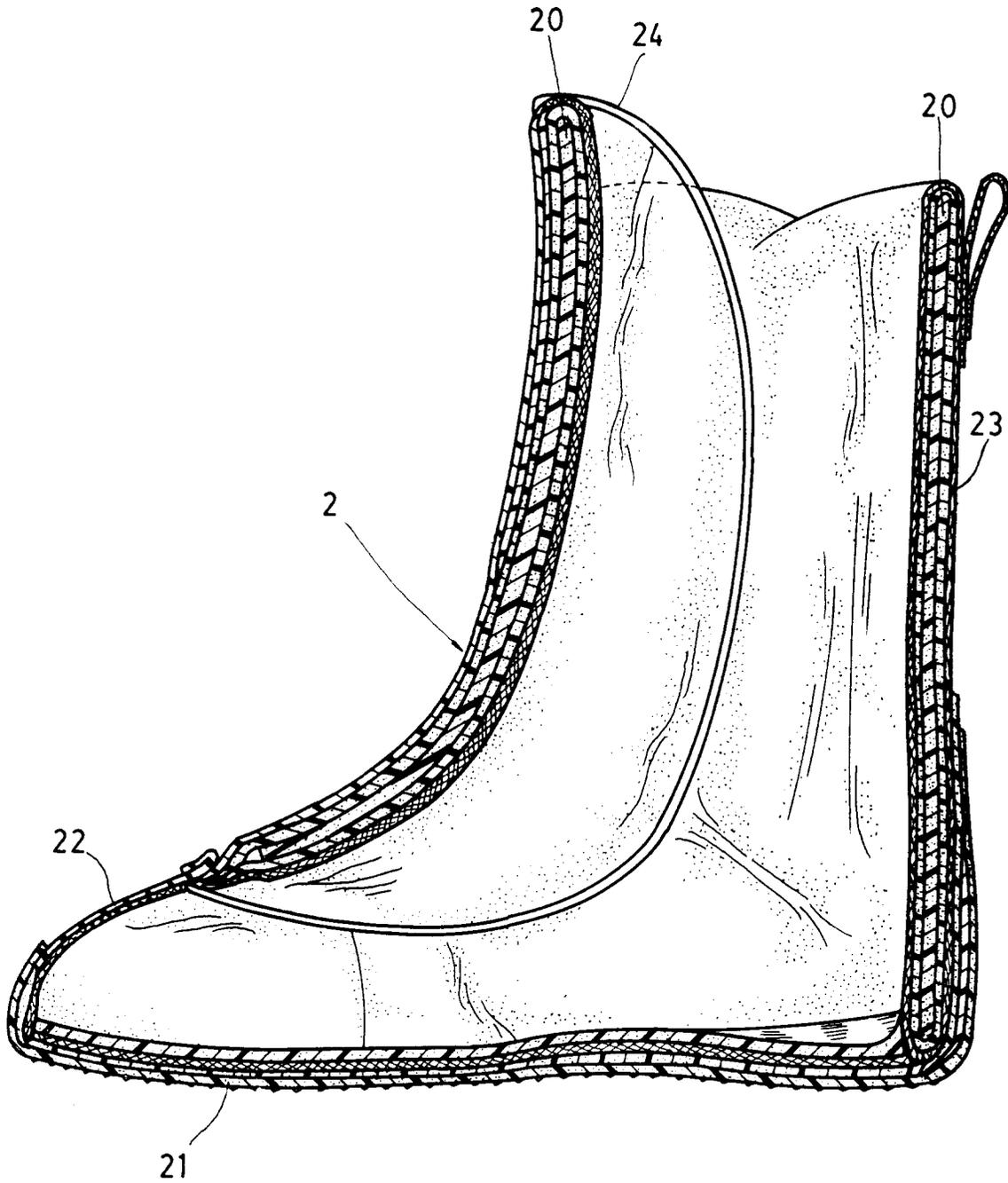


FIG. 3

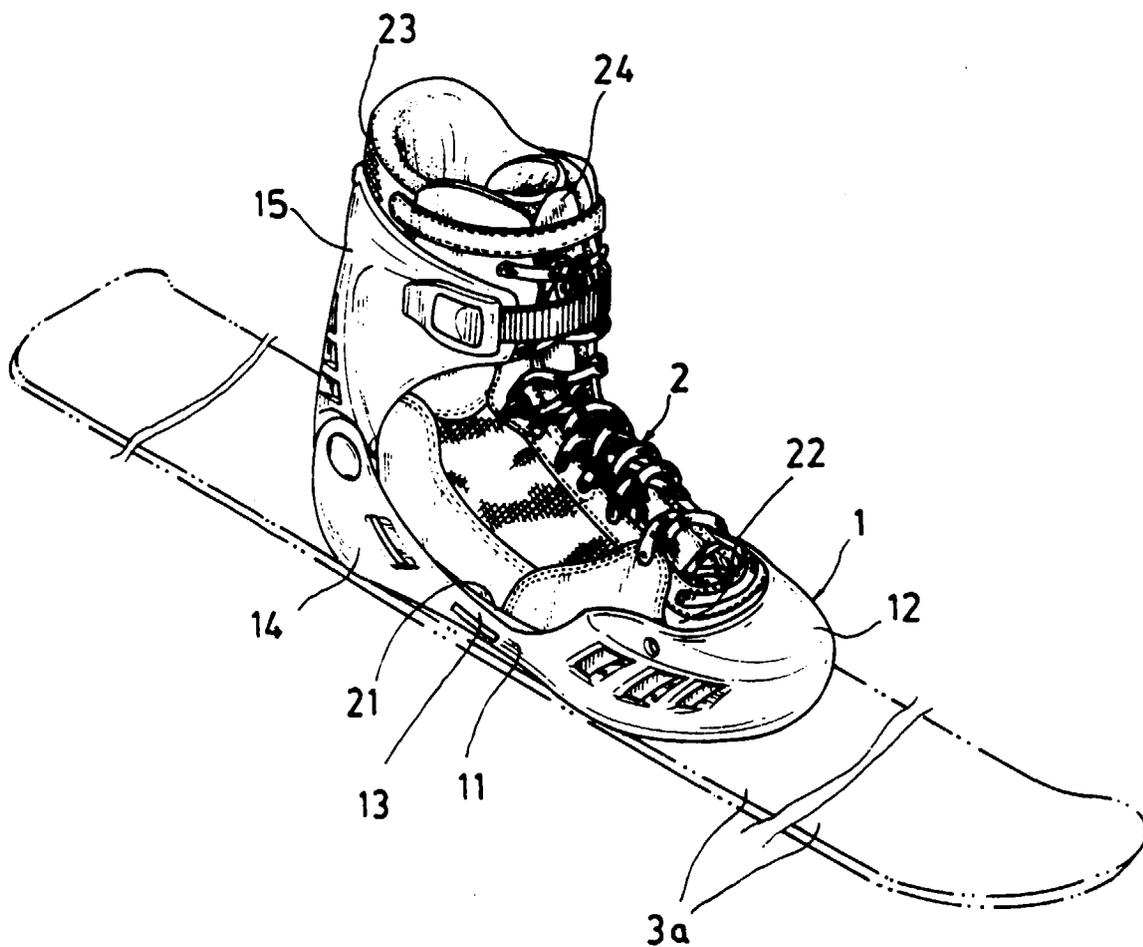


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 96 30 5201

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	EP-A-0 551 704 (ROLLERBLADE INC) 21 July 1993 * column 4, line 50 - column 5, line 27; claims; figures *	1-4
A	DE-U-93 07 747 (S00) 22 July 1993	
A	US-A-3 849 914 (BERTELE G) 26 November 1974	
A	GB-A-1 589 837 (TEC TUNG TE WANG) 20 May 1981	
A	GB-A-2 068 739 (ALI S D;ALI M Y) 19 August 1981	
A	FR-A-2 659 534 (SALOMON SA) 20 September 1991	
D,A	US-A-5 357 695 (LU JINNY) 25 October 1994	
		CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
		A43B5/16 A43B5/18
		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
		A43B
The present search report has been drawn up for all claims		
Place of search	Date of completion of the search	Examiner
THE HAGUE	11 December 1996	Soederberg, J
CATEGORY OF CITED DOCUMENTS		
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		

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