

(12) UK Patent Application (19) GB (11) 2 147 792 A

(43) Application published 22 May 1985

(21) Application No 8327231

(22) Date of filing 12 Oct 1983

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(51) INT CL⁴

A43B 3/12

(52) Domestic classification

A3B 3A 7C3 8C 8E2D

(56) Documents cited

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(58) Field of search

A3B

(54) Footwear

(57) Footwear, especially a ladies shoe, has an inner and outer sole with a series of flattened tubes therebetween through which extends a single continuous strap the free ends of which are secured together around a wearer's ankle, and wherein the straps form loops which are individually adjustable to permit the loops to accommodate variations in foot breath and instep height.

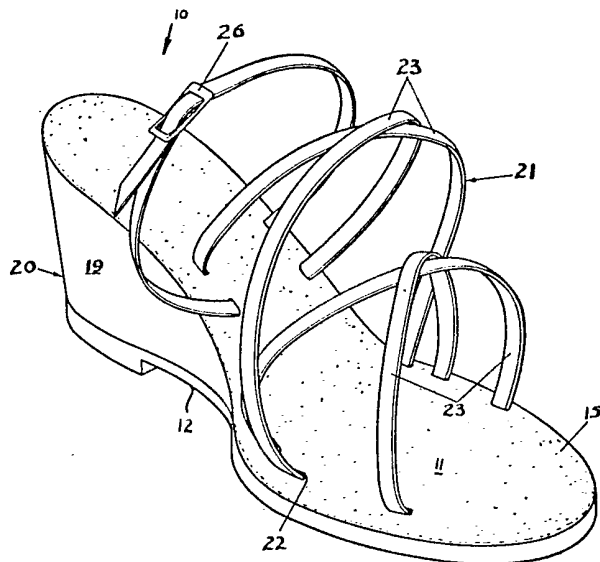


FIG 1

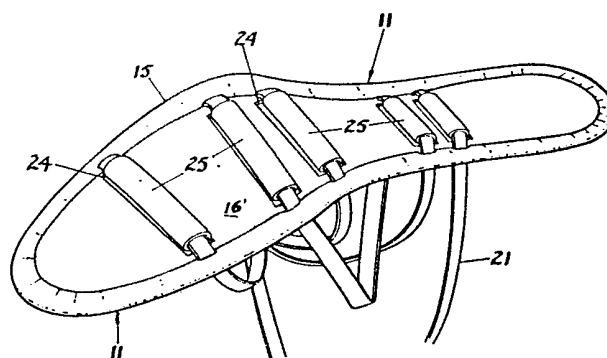
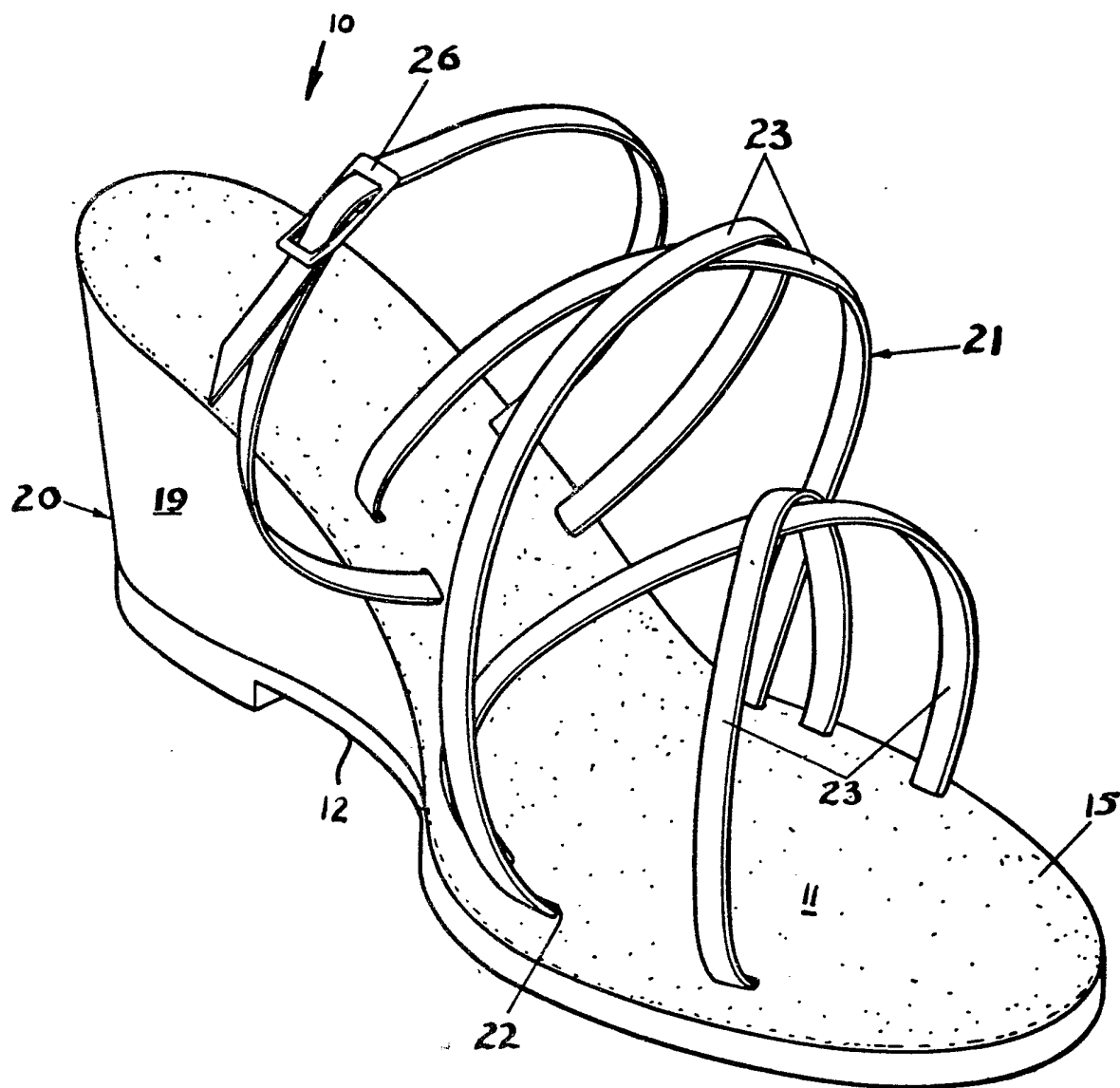
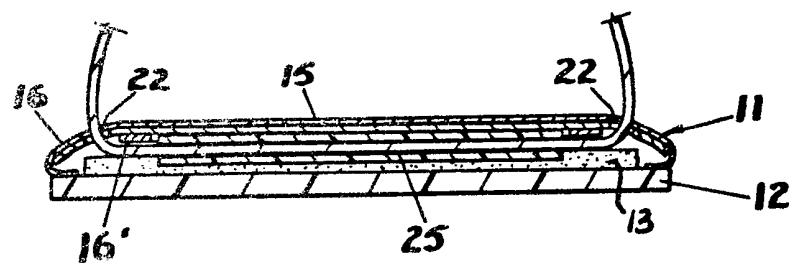
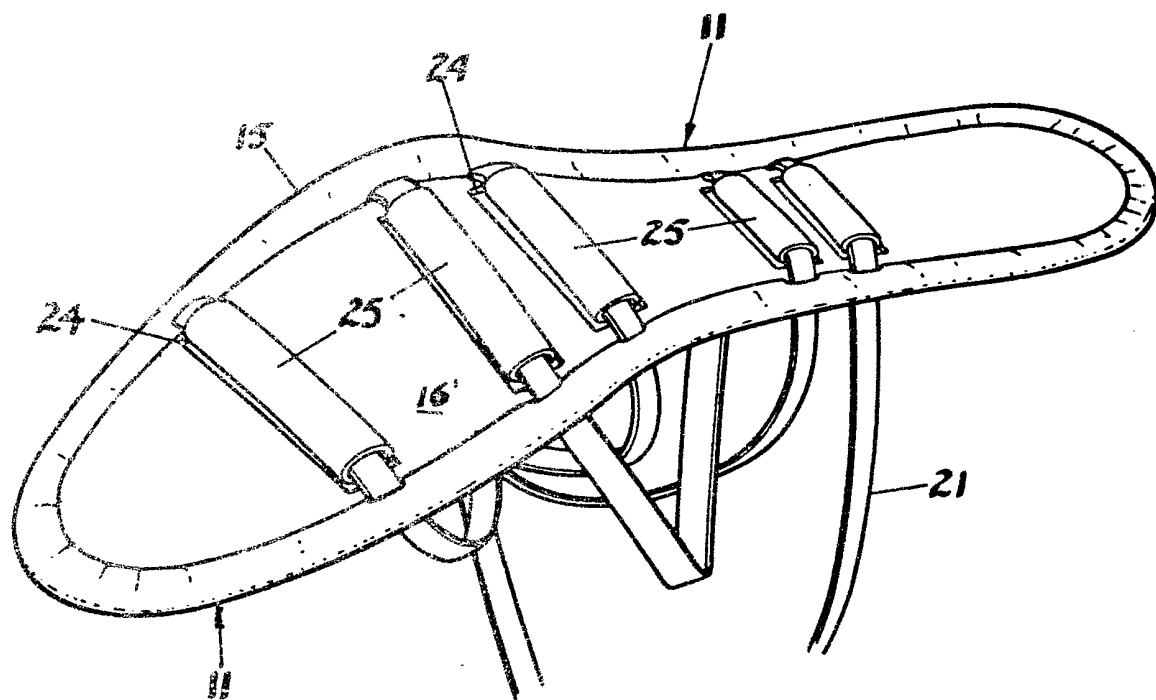


FIG 3

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**FIG 1**

**FIG 2****FIG 3**

SPECIFICATION

Footwear

5 This invention relates to improved footwear, and in particular to a ladies shoe having an adjustable fixing strap which enables the shoe to accommodate variations in the width of ladies feet (for a given 5. foot size).

10 The applicants are aware of ladies shoes, especially those which can be put in the sandal class, having a series of criss-cross strap-forming loops positioned along the length of the inner sole and being formed by a number of separate leather
15 straps, with the wearer's foot being arranged to fit through the strap loops. Each of the strap ends is fixed, for example by rivetting or glueing, between the inner and outer soles of the shoe. Heretofore, shoes of this general type have suffered from a
20 number of disadvantages. Firstly, it is not uncommon for one of the loops to break or a strap end to become detached from its fixing point between the inner and outer sole of the shoe. Naturally, if any one of the strap ends is not fixed securely, is likely
25 that the detachment of strap end will occur during wear, particularly in the case of a tight fitting where the wearer's foot places the straps in constant tension. Secondly, shoes of this kind are unable to be comfortably worn by ladies having feet
30 which are not of normal size, for example feet which are wider or narrower than that of the normal sized foot. For a given foot size therefore, a person having unusually wide or unusually narrow feet is indeed difficult to fit.

35 It is the main object of the present invention to provide an improved ladies shoe of the type as described hereinbefore but which enables the shoe (for a given foot size, i.e. length) to accommodate feet of varying breadth and/or instep.

40 It is a further object of the present invention to provide an improved shoe of the general type referred to hereinbefore, which will enable the location of the buckle to be determined by the wearer whether that location be on the instep, behind the
45 heel or to one side of the ankle, which is in contradistinction to the prior art where the buckle position varies according to the foot size.

According to this invention therefore, there is provided improvements to footwear, especially a
50 ladies shoe, of the type having an inner and outer sole, a series of foot retention loops extending across the inner sole along a major portion of its length, the improvements being characterised in that the loops are formed by a single continuous
55 strap, the free ends of which are securable together around a wearer's ankle, and also in that each of the loops comprises a freely 3. slidable strap portion between the inner and outer sole, the arrangement being such that said loops formed by
60 the single strap are individually adjustable to thereby accommodate variations in foot breadth and instep height.

In a preferred embodiment, the freely slidable strap portions passing between the inner and outer
65 soles are located in "flattened", flexible plastics

tubes or sleeves spaced lengthwise along the shoe and interposed between the soles and secured, for example, by glueing, to the inner surface of either the inner or outer sole, the diameter of each tube
70 or sleeve being sufficient to allow a strap portion to freely slide therethrough.

In a further preferred arrangement, the short-length sleeves are located in shallow "cut-outs" formed in the underside of the inner sole and
75 embedded in a layer of expanded foam which forms a cushion layer between the soles.

In order to more fully explain the applicant's invention, an embodiment is described hereunder in some further detail with reference to and illustrated in the accompanying drawings in which:

80 *Figure 1* is a perspective view of a shoe constructed according to this invention,

Figure 2 is a transverse section taken through the shoe, and

85 *Figure 3* is an underside perspective view of the inner sole only.

In this embodiment, a ladies ankle strap shoe 10 comprises an inner sole 11, an outer sole 12 and an intermediate foam plastics cushioning layer 13
90 therebetween, the forward portions of the soles 11, 12 being in face-to-face contiguous relationship and secured together (in a shoe press) by means of an adhesive. In this embodiment, the inner sole 11 comprises an outer leather or imitation leather
95 lining 15 glued to a pair of cardboard insole stiffener layers 16, 16' which are themselves glued to one another, the lining 15 having an intumed peripheral edge portion 17 which overlaps the periphery of the insole stiffener 16 and is glued
100 thereto, whilst the outer sole 12 is moulded of any suitable synthetic material and is of conventional design.

An approximately wedge-shaped block 19 which in this embodiment is formed of polyurethane, is
105 interposed between the inner and outer soles 11, 12 so as to form a heel 20 which extends from the rear end of the shoe 10 to approximately the middle thereof, the inner sole 11, the foam infill layer 13 and the heel 20, and also the outer sole 12 and the heel 20, respectively being secured together by
110 a suitable adhesive. The aforementioned construction and its manner of manufacture 5. is well known to shoe manufacturers.

To retain the shoe to a wearer's foot, there is provided a single continuous strap 21 which is
115 threaded through lengthwise spaced pairs of opposed slots 22 formed in the inner sole 11, and through each of which is threaded the strap 21, the slots 22 of any one pair being located adjacent respective sides of the inner sole 11, in a manner to
120 form a series of criss-cross loops 23 which run along the length of the shoe 10 for a major portion thereof.

In this embodiment, the slots 22 extend through the insole board 16 and lining 15 but not the insole board 16'. The underside of the inner sole 11 is provided with shallow rectangular recesses 24 in which are located short-lengths of open-ended soft flexible plastics sleeves 25, each of which has its
125 underside glued to the inner face of the outer sole
130

12. Each of the strap-forming loops 23 has a hidden strap portion extending through a respective sleeve 25 so as to allow the length thereof to be readily adjusted. It will be appreciated that during the manufacture of the shoe 10, it is necessary to ensure that the adhesive used to glue the parts together does not enter or work its way into the interior of the open-ended sleeves 25 where it would interfere with the free sliding movement of the individual loops 23. After the shoe 10 has been set in the press, the tubular sleeves 25 assume a "flattened shape". In this embodiment the sleeves 25 are made from P.V.C. tubing having a diameter of 6 mm and wall thickness of 0.65 mm.

15 The free ends of the strap 21 project from the slots 22 located adjacent the heel region of the shoe 10, with one of the free ends having a "slide-grip" buckle 26 secured thereto.

In use, a shoe 10 is fitted by placing the wearer's foot through the criss-cross loops 23 so that each of the loops 23 extends across the instep surface of the foot (not shown). Each of the strap-forming loops 23 is readily adjustable and such an arrangement enables the shoe to be comfortably fitted to a foot (for a given size, i.e. length) regardless of the breadth or of the height of the instep of that foot. This is a significant feature insofar as the manufacturer is concerned since it means that it is possible for the manufacturer to make one only shoe base (that is, the inner and outer soles 11, 12 and heel 19) for a given foot size.

Furthermore, with the single continuous adjustable strap 21, one is able to please oneself with the location of the buckle fastener 26 and hence one can have the ankle strap buckle fastener 26 located to either side of the wearer's ankle, on the inside or instep of the ankle, or even at the back of the wearer's heel in the form of a slingback heel strap.

It will be appreciated that both the inner and outer soles can be made from leather, leather substitute or any suitable synthetic plastics material.

A brief consideration of the above embodiment will indicate that the invention is extremely simple yet nevertheless provides for an ankle strap shoe having an adjustable strap which enables the wearer to adjust the retaining strap to suit one's own requirements, this being a particularly advantageous feature for those persons having feet which may be wider or narrower than normal or which may have an unusually high instep.

CLAIMS

1. Improvements to footwear, especially a ladies shoe, of the type having an inner and outer sole, a series of strap-forming loops for retaining a wearer's foot extending across the inner sole along a major portion of its length, the improvements being characterised in that the loops are formed by a single continuous strap, the free ends of which are securable together around a wearer's ankle, and also in that each of the loops comprises a freely slidable strap portion between the inner and outer sole, the arrangement being such that said loops formed by the single strap are individually

adjustable to thereby accommodate variations in foot breadth and instep height.

2. Improved footwear according to claim 1 characterised in that between said inner and outer sole, there are located a plurality of transversely extending sleeve members spaced lengthwise along the shoe, each of the sleeves defining an unobstructed passageway through which extends a said slidable portion of a respective said loop.

3. Improved footwear according to claim 2 wherein said sleeve members each comprise a short-length tube of soft, flexible plastics material.

4. Improved footwear according to claim 2 or 3 wherein the inner sole is provided, adjacent each side thereof, with a row of length-wise spaced slots through which is threaded said strap, wherein said sleeves are located between the spaced rows of slots, the slots being arranged in a manner to form loops which are "criss-cross".

5. Improved footwear according to any preceding claim wherein one of the free ends of said strap is provided with buckle fastening means for securing said strap around a wearer's ankle.

6. Improved footwear according to any one of claims 2 to 5 comprising an intermediate foam plastics cushioning layer between said inner and outer soles, said flexible sleeves being set in said cushioning layer.

7. Improved footwear according to any preceding claim further comprising a heel formed by a wedge-shaped moulded block of polyurethane material interposed between said inner and outer soles.

8. Improved footwear according to any preceding claim wherein said inner sole comprises an insole card board stiffener and an outer lining of leather or leather substitute material.

9. An improved ladies shoe substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.