

Jan. 19, 1971

O. EDER ET AL

3,555,705

FOOTWEAR

Filed July 29, 1969

3 Sheets-Sheet 1

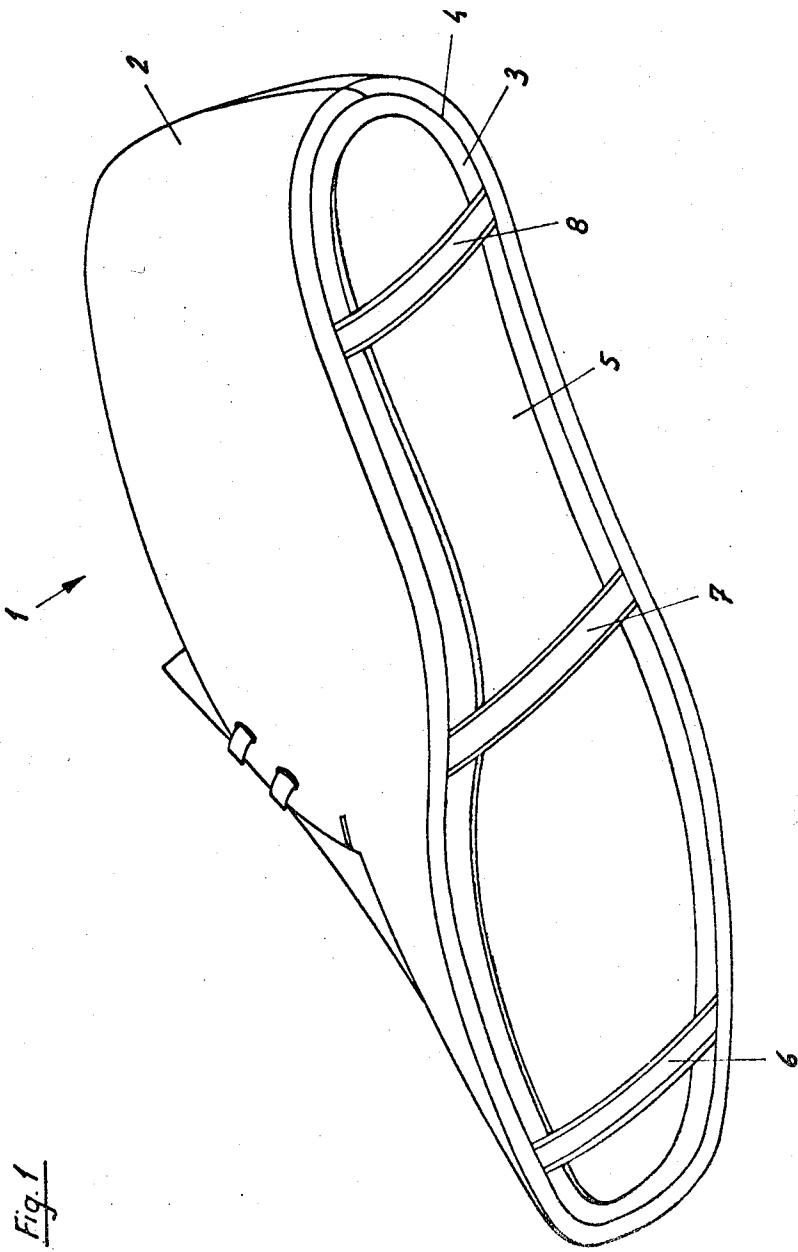


Fig. 1

Jan. 19, 1971

O. EDER ET AL

3,555,705

FOOTWEAR

Filed July 29, 1969

3 Sheets-Sheet 2

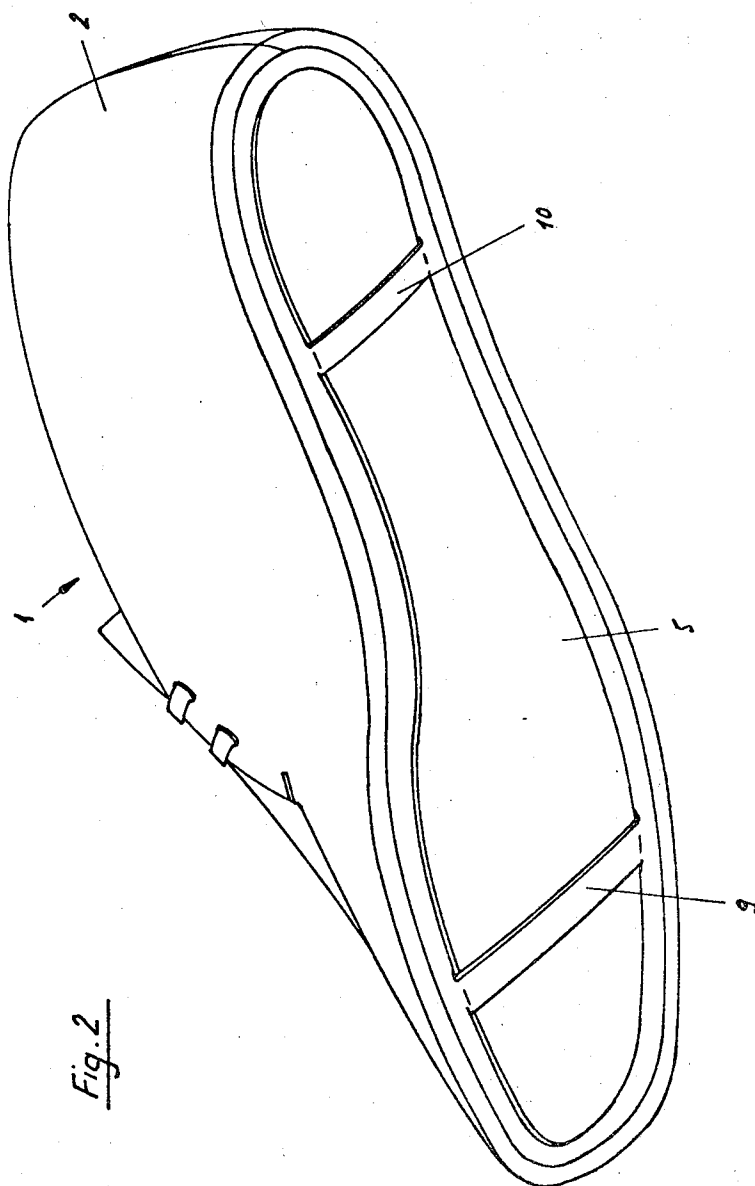


Fig. 2

Jan. 19, 1971

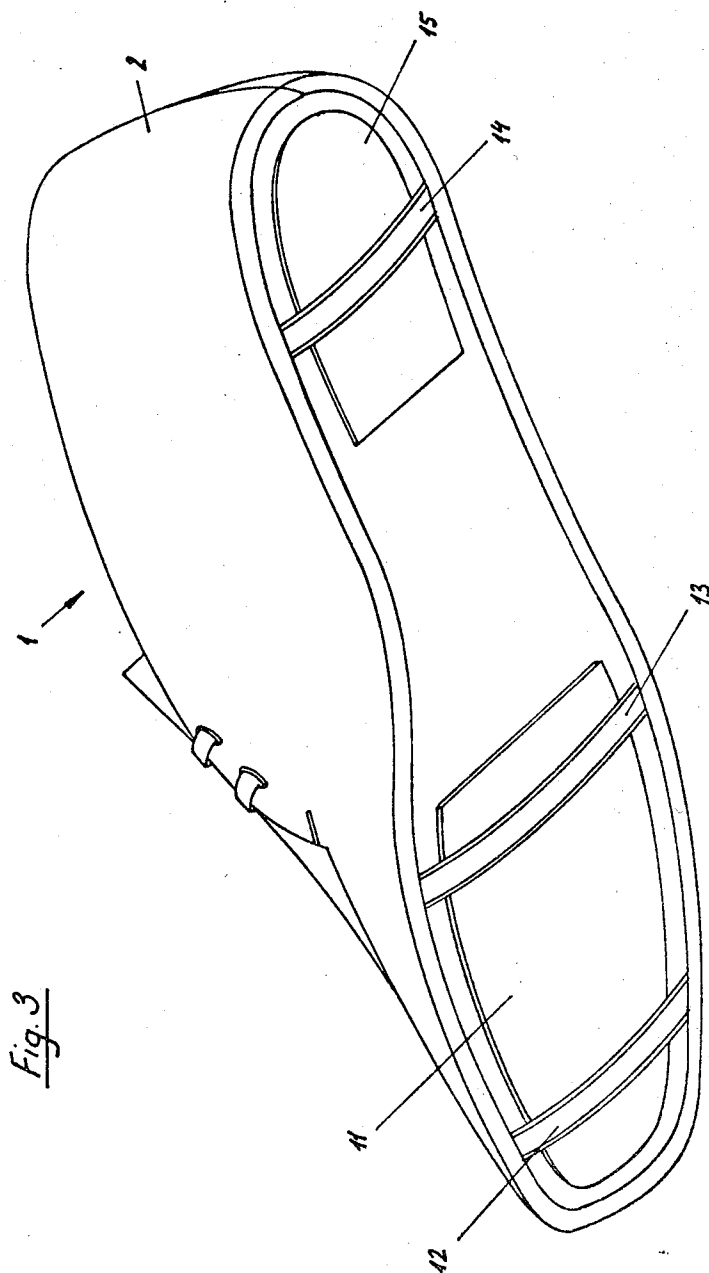
O. EDER ET AL.

3,555,705

FOOTWEAR

Filed July 29, 1969

3 Sheets-Sheet 3



1

3,555,705  
FOOTWEAR

Otto Eder, Ternitz, and Oskar Kawan, Wimpassing,  
Austria, assignors to Semperit Österreichisch-Ameri-  
kanische Gummiwerke Aktiengesellschaft, Vienna, Aus-  
tria, a corporation of Austria

Filed July 29, 1969, Ser. No. 845,705

Claims priority, application Austria, July 30, 1968,

A 7,435/68

Int. Cl. A43b 00/00; A43d 29/00

U.S. Cl. 36—2.5

5 Claims

## ABSTRACT OF THE DISCLOSURE

Footwear with an inner sole, an outer sole and an intermediate sole has holding means acting to hold the intermediate sole in predetermined position adjacent the inner sole prior to the mounting of the outer sole.

The invention relates to footwear with a sewn-in inner sole and an attached synthetic or rubber outer sole, particularly a foamed polyurethane outer sole, as well as an intermediate sole between the inner sole and the outer sole.

Shoes are manufactured either in crimped or pinched form or by sewing in the inner sole. While shoes with a pinched supporting layer generally have a stiff inner sole or a stiff intermediate sole, shoes with a sewn-in inner sole are flexible. This flexibility, however, proves to be disadvantageous, particularly in street shoes. In order to correct this deficiency, such shoes generally are provided with supporting layer reinforcements or intermediate soles. Various reinforcements are known which are placed onto the inner sole before soling.

During soling it happens frequently that these reinforcements are moved off the required position, which causes subsequent irregularities in the shoe. When the intermediate sole is applied by cementing, there is needed an additional material, namely the cement, and at least an additional operation step which, in turn, renders the product more expensive.

It is accordingly among the principal objects of the invention to obviate these disadvantages of the prior art.

It is another object of the invention to provide the shoe with an intermediate sole which before soling is held below the inner sole by placing it in one or more suspension devices provided on the inner sole. Such suspension devices may, for instance, be straps or slots. Thus the intermediate sole is quickly attached to the inner sole when the shaft is placed onto the last and will be held in place during the soling process.

Further objects and advantages of the invention will be set forth in part in the following specification and in part will be obvious therefrom without being specifically referred to, the same being realized and attained as pointed out in the claims hereof.

The foregoing and other objects of the invention will be best understood from the following description of exemplifications thereof, reference being had to the accompanying drawings, wherein:

2

FIG. 1 is a perspective view of a shoe with an inner sole and an intermediate sole held thereon by straps connected to the upper of the shoe;

FIG. 2 is a perspective view, similar to FIG. 1, but showing a modification in which the intermediate sole is held by straps cut off the inner sole; and

FIG. 3 is a perspective view, similar to FIG. 1, but showing a modified two-piece intermediate sole.

In carrying the invention into effect in the embodiments which have been selected for illustration in the accompanying drawings and for description in this specification, and referring now particularly to FIG. 1, a shoe 1 has an upper 2 to the lower part of which there is sewn an inner sole 3 along the line 4. Below the inner sole 4 there is provided a reinforcement layer that forms an intermediate sole 5. The intermediate sole 5 is held against the inner sole 3 by straps 6, 7 and 8. The intermediate sole 5 may be made of cardboard, pressed leather fibers, cellulose fibers, or the like.

In soling the shoes, the upper 2 with the sewn-in inner sole 3 is provided with straps, 6, 7 and 8. Thereafter the intermediate sole 5 is moved between the straps 6, 7, 8 and the inner sole 3. Then the last (not shown) is mounted on a sole form and subsequently the outer sole, for instance made of polyurethane, is foamed up.

FIG. 2 illustrates a modification wherein the intermediate reinforcing sole 5 is placed in slots that are formed by cut out suspension straps 9 and 10 in the inner sole 3. To prevent projection of the elastic sole material of the inner sole 3 from entering into the inner shoe, an inner sole 3 of several layers may be used and only the outermost layer be slotted to form the suspension straps 9 and 10.

In the modification of FIG. 3 there is held in the region of the ball of the foot a first intermediate reinforcing sole portion 11 and in the heel region a second intermediate reinforcing sole portion 15 that is not connected to the portion 11 and is spaced therefrom for a distance across the middle of the inner sole 3. The portion 11 is held by straps 12 and 13, while the portion 15 is held by a strap 14. The straps 12, 13 and 14 are connected to the upper 2. By this construction, a higher elasticity is attained in the center section.

We wish it to be understood that we do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

Having thus described the invention, what we claim as new and desire to be secured by Letters Patent, is as follows.

1. Footwear comprising:

an upper,

an inner sole,

an outer sole of a synthetic resin material or rubber, permanent intermediate sole means disposed between said inner sole and said outer sole, and

suspension means operable to hold up to and throughout soling said intermediate sole means in predetermined position adjacent said inner sole, in which position the internal surface of said intermediate sole means engages at least the major portion of the outer surface of said inner sole, prior to the mounting of said outer sole.

3

2. Footwear, as claimed in claim 1, said suspension means comprising at least one strap connected to said upper and engaging said intermediate sole means.

3. Footwear, as claimed in claim 1, said suspension means comprising at least one strap cut from at least the outermost layer of said inner sole and defining with said inner sole a slot, said intermediate sole means being disposed in said slot and engaged by said strap.

4. Footwear, as claimed in claim 1, said holding means including a plurality of straps engaging the external surface of said intermediate sole means.

5. Footwear, as claimed in claim 1, said intermediate sole means including a plurality of intermediate sole portions, said suspension means including at least two straps,

4

each engaging one of said portions, said portions being spaced apart from each other across a gap near the center of said inner sole.

References Cited

UNITED STATES PATENTS

2,291,799	8/1941	Discenza	12—142
2,963,722	12/1960	Stix	12—145
3,270,357	9/1966	MacPherson	12—142
3,386,116	6/1968	Batchelder et al.	12—142

PATRICK D. LAWSON, Primary Examiner

U.S. Cl. X.R.

12—145