

Title (en)  
SHOE WITH SPRING-LIKE SOLE MEMBER

Publication  
**EP 0272082 B1 19920812 (EN)**

Application  
**EP 87311016 A 19871215**

Priority  
• US 13130987 A 19871208  
• US 94224586 A 19861215

Abstract (en)  
[origin: EP0272082A2] A shoe, which is adapted for a particular type of activity, such as running, is provided with a flexible resilient member (13) interposed between an outer sole (12) and an inner sole (16) for storing and releasing energy during each running step. The flexible resilient member (13) is arranged to flex in the region of the ball of the foot of the wearer. whereby as the foot is flexed, energy is stored in the flexible resilient member, and as the foot leaves the ground, the flexible resilient member restores itself to its resting condition while releasing the stored energy in a manner which assists the running motion of the wearer,. The flexible resilient member may be formed of a fiber reinforced polymeric material, such as carbon fiber reinforced epoxy which has a directional flexure characteristic. A plurality of such directional layers of the material may be bonded to one another, so as to achieve a desired overall flexure characteristic which may have different longitudinal and transverse components. The flexure characteristic may be adapted for various wearer weights and running styles, as well as for characteristics of running surfaces.

IPC 1-7  
**A43B 13/18**

IPC 8 full level  
**A43B 13/04** (2006.01); **A43B 5/06** (2006.01); **A43B 13/12** (2006.01); **A43B 13/18** (2006.01)

CPC (source: EP)  
**A43B 5/06** (2013.01); **A43B 13/12** (2013.01); **A43B 13/187** (2013.01)

Cited by  
EP0947145A1; DE19914472C2; ES2053398A1; US5832634A; US5918338A; DE19919409C1; EP0548475A1; FR2685173A1; US6079125A; EP1048233A3; WO2017125676A1; US11272756B2; US10660399B2; EP1048233A2; USRE40474E; US6528140B1; US8826569B2; LT3640B; EP4140346A1

Designated contracting state (EPC)  
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0272082 A2 19880622; EP 0272082 A3 19890823; EP 0272082 B1 19920812**; AU 601005 B2 19900830; AU 8250087 A 19880616; CA 1330485 C 19940705; DE 3781121 D1 19920917; DE 3781121 T2 19921224; ES 2033886 T3 19930401; GR 3005540 T3 19930607; JP H0698050 B2 19941207; JP S6485601 A 19890330

DOCDB simple family (application)  
**EP 87311016 A 19871215**; AU 8250087 A 19871214; CA 554074 A 19871211; DE 3781121 T 19871215; ES 87311016 T 19871215; GR 920401868 T 19920827; JP 31595587 A 19871214