Title (en)

SHOE SOLE STRUCTURES USING A THEORETICALLY IDEAL STABILITY PLANE

Title (de

SCHUHSOHLENKONSTRUKTION MIT ANWENDUNG EINER THEORETISCHEN IDEALEN STABILITÄTSEBENE

Title (fr)

STRUCTURES DE SEMELLE DE CHAUSSURE UTILISANT UN PLAN DE STABILITE THEORIQUEMENT IDEAL

Publication

EP 0489858 B1 19971217 (EN)

Application

EP 90914318 A 19900830

Priority

- US 9004917 W 19900830
- US 40071489 A 19890830

Abstract (en)

[origin: WO9103180A1] A construction for a shoe, particularly an athletic shoe, includes a sole that conforms to the natural shape of the foot, particularly the sides, and that has a constant thickness in frontal plane cross sections. The thickness of the shoe sole sides contour equals and therefore varies exactly as the thickness of the load-bearing sole portion varies due to heel lift, for example. The shoe sole, when under load and tilting to the side, deforms in a manner which closely parallels that of the foot of its wearer, while retaining nearly the same amount of contact of the shoe sole with the ground as in its upright state. The deformable shoe sole has its upper portion or its sides bent inwardly somewhat so that when worn, the sides bend out easily to approximate a custom fit. The shoe sole further includes a naturally contoured sole which is abbreviated along its sides to only essential structural stability and propulsion elements, which are combined and integrated into the same discontinuous shoe sole structural elements underneath the foot which approximate the principal structural elements of a human foot and their natural articulation between elements

IPC 1-7

A43B 13/04

IPC 8 full level

A43B 13/14 (2006.01)

CPC (source: EP US)

A43B 13/143 (2013.01 - EP US); A43B 13/145 (2013.01 - EP US); A43B 13/146 (2013.01 - EP US); A43B 13/148 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB IT LI LU NL SE

DOCDB simple family (publication)

**WO 9103180 A1 19910321**; AT E161152 T1 19980115; AU 6432390 A 19910408; DE 69031835 D1 19980129; DE 69031835 T2 19980514; DK 0489858 T3 19980831; EP 0489858 A1 19920617; EP 0489858 B1 19971217; ES 2113349 T3 19980501; JP 3060033 B2 20000704; JP H04507364 A 19921224; US 2002007572 A1 20020124

DOCDB simple family (application)

**US 9004917 W 19900830**; AT 90914318 T 19900830; AU 6432390 A 19900830; DE 69031835 T 19900830; DK 90914318 T 19900830; EP 90914318 A 19900830; ES 90914318 T 19900830; JP 51340790 A 19900830; US 78045001 A 20010212