

Title (en)

TIGHT SHOE LACE-UP DEVICE

Title (de)

KRAFTSPANNVORRICHTUNG FÜR SCHUHWERK

Title (fr)

DISPOSITIF DE SERRAGE DE PUISSANCE D'UNE CHAUSSURE

Publication

EP 1156723 A1 20011128 (FR)

Application

EP 00993579 A 20001222

Priority

- FR 0003661 W 20001222
- FR 9916846 A 19991228
- FR 0006960 A 20000526

Abstract (en)

[origin: WO0147386A1] The invention concerns a lace-up device designed to equip a footwear (CH), enabling to tie the shoelace tightly without hurting the hands. The lace-up device comprises a gripping element (1) arranged on the shoelace (15) at the loop (2) formed by the shoelace (15) outside the lace-up zone (16). The gripping device (1) comprises a rigid structure (3) for distributing the tension of the shoelace (15) over the user's hand (M).

IPC 1-7

A43B 5/04; A43C 1/00

IPC 8 full level

A43B 5/04 (2006.01); **A43B 7/12** (2006.01); **A43C 1/00** (2006.01); **A43C 11/18** (2006.01); **A43C 11/20** (2006.01)

CPC (source: EP US)

A43B 5/0401 (2013.01 - EP US); **A43B 5/0447** (2013.01 - EP US); **A43B 5/0496** (2013.01 - EP US); **A43B 7/12** (2013.01 - EP US);
A43C 1/00 (2013.01 - EP US); **A43C 7/00** (2013.01 - EP US); **A43C 11/20** (2013.01 - EP US)

Citation (search report)

See references of WO 0147386A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0147386 A1 20010705; AT E354980 T1 20060315; DE 60033638 D1 20070412; DE 60033638 T2 20071031; EP 1156723 A1 20011128;
EP 1156723 B1 20070228; FR 2802783 A1 20010629; FR 2802783 B1 20020531; JP 2003518397 A 20030610; JP 5016764 B2 20120905;
US 2003034365 A1 20030220; US 2005029318 A1 20050210; US 2006213085 A1 20060928; US 6802439 B2 20041012;
US 7281342 B2 20071016; US 7409781 B2 20080812

DOCDB simple family (application)

FR 0003661 W 20001222; AT 00993579 T 20001222; DE 60033638 T 20001222; EP 00993579 A 20001222; FR 0006960 A 20000526;
JP 2001547986 A 20001222; US 44299006 A 20060531; US 92608601 A 20010919; US 94405004 A 20040920