

Title (en)

Chimney structures for footwear and foot coverings

Title (de)

Kaminkonstruktion für Schuhwerk und Fussabdeckung

Title (fr)

Structure de cheminée pour chaussure et chausson pour pied

Publication

**EP 1728444 A1 20061206 (EN)**

Application

**EP 05021291 A 20050929**

Priority

- US 14323205 A 20050602
- US 14353805 A 20050602
- US 14332605 A 20050602

Abstract (en)

The present invention employs chimneys (32, 34) and chimney structures (36, 60) to move or vent heat and moisture away from the foot and out of the microclimate of the shoe. The chimneys (32, 34) define pathways (42, 54) that utilize convection and other principles to cool and dry the foot. The chimneys (32, 34) and chimney structures (36, 60) can have many different configurations, and can be positioned anywhere desired in the upper (14). For example, chimneys (32, 34) can be positioned on the sidewalls (20) of the upper (14), in the tongue (26), or both. Chimneys (32, 34) and chimney structures (36, 60) can also be used with form-fitting foot coverings (720) such as socks or leggings, or used with other apparel. Specialized footbeds (800) can also be employed with footwear chimneys (32, 34) to evacuate hot, moist air away from the underside of the foot and towards the chimneys (32, 34).

IPC 8 full level

**A43B 7/08** (2006.01); **A41B 11/00** (2006.01); **A43B 17/08** (2006.01); **A43B 17/10** (2006.01); **A43B 19/00** (2006.01); **A43B 23/07** (2006.01);  
**A43B 23/26** (2006.01)

CPC (source: EP)

**A41D 27/28** (2013.01); **A43B 7/08** (2013.01); **A43B 17/08** (2013.01); **A43B 17/102** (2013.01); **A43B 19/00** (2013.01); **A43B 23/07** (2013.01);  
**A43B 23/26** (2013.01)

Citation (applicant)

- US 6108819 A 20000829 - DEBAENE DAVID [US], et al
- US 6228477 B1 20010508 - KLARE ROBERT JOHN [US], et al
- US 6410084 B1 20020625 - KLARE ROBERT JOHN [US], et al
- US 6676993 B2 20040113 - KLARE ROBERT JOHN [US]
- US 6854603 B2 20050215 - KLARE ROBERT JOHN [US]

Citation (search report)

- [X] WO 0051457 A1 20000908 - HAN SANG KWAN [KR]
- [X] DE 9016134 U1 19910221
- [X] GB 191514398 A 19160210 - CAROLIN EDWARD MARLAY DE LAUNE
- [X] US 757424 A 19040412 - VOHL LOUIS [US]
- [X] EP 0800777 A2 19971015 - NORDICA SPA [IT]
- [X] FR 1310482 A 19621130
- [X] US 2703937 A 19550315 - MCGINN JOHN L
- [X] EP 0350611 A1 19900117 - GORE W L & ASS GMBH [DE]
- [X] US 5014363 A 19910514 - HUBNER THORGER [DE], et al

Cited by

CN107280111A; WO2008025927A3; WO2012120202A1; US10143252B2; US10842210B2; US11419371B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1728444 A1 20061206; EP 1728444 B1 20160504;** WO 2006132624 A1 20061214

DOCDB simple family (application)

**EP 05021291 A 20050929;** US 2005019676 W 20050603