

Title (en)  
UMBRELLA DEVICE

Title (de)  
SCHIRMVORRICHTUNG

Title (fr)  
DISPOSITIF PARAPLUIE

Publication  
**EP 1065955 A1 20010110 (DE)**

Application  
**EP 99907631 A 19990313**

Priority  
• DE 19812553 A 19980321  
• EP 9901668 W 19990313

Abstract (en)  
[origin: US6941958B1] An umbrella device which has a shank, an umbrella-like cap formed as a membrane and a driver. The membrane is connected to the shank and is caused by the driver to move from a position of rest where it droops limply around the shank to an open position where it is essentially horizontal due to the centrifugal forces of the membrane produced by the rotation of the membrane by the driver.

IPC 1-7  
**A45B 19/02**; **A45B 23/00**

IPC 8 full level  
**A45B 19/02** (2006.01); **A45B 23/00** (2006.01)

CPC (source: EP US)  
**A45B 19/02** (2013.01 - EP US); **A45B 23/00** (2013.01 - EP US); **A45B 2023/0012** (2013.01 - EP US); **A45B 2023/0093** (2013.01 - EP US)

Citation (search report)  
See references of WO 9948399A1

Designated contracting state (EPC)  
AT DE ES FR GR IT

DOCDB simple family (publication)  
**US 6941958 B1 20050913**; AT E222468 T1 20020915; DE 19812553 C1 19990325; DE 59902410 D1 20020926; EP 1065955 A1 20010110; EP 1065955 B1 20020821; ES 2182491 T3 20030301; JP 2002507440 A 20020312; WO 9948399 A1 19990930

DOCDB simple family (application)  
**US 64610100 A 20001207**; AT 99907631 T 19990313; DE 19812553 A 19980321; DE 59902410 T 19990313; EP 9901668 W 19990313; EP 99907631 A 19990313; ES 99907631 T 19990313; JP 2000537462 A 19990313