

Title (en)  
AUTOMATIC UMBRELLA COMPRISING A CURVED TELESCOPIC SHAFT

Title (de)  
AUTOMATISCHER SCHIRM MIT EINEM GEKRÜMMTEN TELESKOPSTOCK

Title (fr)  
PARAPLUIE A OUVERTURE AUTOMATIQUE COMPORTANT UN MANCHE TELESCOPIQUE COURBE

Publication  
**EP 1054608 A1 20001129 (DE)**

Application  
**EP 99964417 A 19991206**

Priority  
• DE 9903948 W 19991206  
• DE 19858948 A 19981210  
• DE 19917456 A 19990417

Abstract (en)  
[origin: WO0033695A1] In a conventional automatic umbrella, the straight telescopic shaft is located exactly in the middle of the umbrella when opened. Due to the unfavorable position of the telescopic shaft, only approximately 1/3 of the umbrella area is used. The aim of the invention is to increase the utilization ratio of the umbrella area. The inventive umbrella is comprised of a curved telescopic shaft (1) with a connecting piece (3), of the crown (2), the top rod system with the top cover (4), the slid unit (5), and of the handle (6). The connecting piece (3), the slide unit (5) and the pivotal crown (2) enable the curved telescopic shaft (1) to be laterally situated in relation to the opened top cover (4), and keeps the middle of the umbrella free. The stability of the opened top rod system with the top cover (4) is guaranteed by the interaction of the connecting piece (3), the guide slide (1.3), the crown (2), the slide unit (5), the support braces (4.2) and of the auxiliary braces (4.3).

IPC 1-7  
**A45B 19/04**; **A45B 11/00**; **A45B 25/16**; **A45B 25/02**

IPC 8 full level  
**A45B 9/02** (2006.01); **A45B 11/00** (2006.01); **A45B 19/00** (2006.01); **A45B 19/04** (2006.01); **A45B 25/02** (2006.01); **A45B 25/06** (2006.01); **A45B 25/08** (2006.01); **A45B 25/16** (2006.01)

CPC (source: EP)  
**A45B 11/00** (2013.01); **A45B 19/04** (2013.01); **A45B 25/02** (2013.01); **A45B 25/16** (2013.01)

Citation (search report)  
See references of WO 0033695A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 0033695 A1 20000615**; CA 2320086 A1 20000615; CN 1290138 A 20010404; DE 19917456 A1 20001019; EP 1054608 A1 20001129; JP 2002531202 A 20020924

DOCDB simple family (application)  
**DE 9903948 W 19991206**; CA 2320086 A 19991206; CN 99802845 A 19991206; DE 19917456 A 19990417; EP 99964417 A 19991206; JP 2000586198 A 19991206