

Title (en)

TRI-FOLDED ELECTRIC UMBRELLA HAVING DOUBLE-FOLDED MIDDLE ROD

Title (de)

DREIFACH GEFALTETER ELEKTRISCHER SCHIRM MIT DOPPELT GEFALTETEM MITTELSTAB

Title (fr)

PARASOL ÉLECTRIQUE PLIABLE EN TROIS COMPRENANT UNE TIGE CENTRALE PLIABLE EN DEUX

Publication

**EP 3903625 B1 20230524 (EN)**

Application

**EP 19907514 A 20190817**

Priority

- CN 201811646820 A 20181230
- CN 2019101228 W 20190817

Abstract (en)

[origin: EP3903625A1] A tri-folded electric umbrella having a double-folded shaft comprises a rib (1), a shaft (2), a handle (3), and a control mechanism for opening and closing the umbrella; the shaft (2) comprises an outer tube (21) and an inner tube (22), the outer tube (21) is provided with an upper runner (4) at a top end thereof, and a lower runner (5) is slidably arranged on the outer tube (21); the rib (1) is cooperatively connected with the upper runner (4) and the lower runner (5); the inner tube (22) is connected to an inner tube plug (221) at a top thereof, and connected to the handle (3) at a bottom thereof; the upper runner (4) is provided with an upper runner pulley seat (41); the lower runner (5) is provided with a lower runner slider (51) which is fixedly provided thereon with a lower runner puller seat (52), and a lower runner slider spring (53) is arranged above the lower runner slider (51); a bottom end of the lower runner slider spring (53) is connected to the lower runner slider (51), and a top end of the lower runner slider spring (53) is connected to the lower runner (5); and the control mechanism for opening and closing the umbrella comprises a pushing device (6), a pulling device (7) and a driving device (8). The umbrella has a simple structure, is convenient to operate, is easy to carry and has strong applicability; the rib strength of the umbrella is great when opened, and the volume of the umbrella ribs is small when folded.

IPC 8 full level

**A45B 25/14** (2006.01); **A45B 19/04** (2006.01); **A45B 19/10** (2006.01); **A45B 25/02** (2006.01); **A45B 25/16** (2006.01)

CPC (source: CN EP)

**A45B 19/04** (2013.01 - EP); **A45B 19/10** (2013.01 - EP); **A45B 25/02** (2013.01 - CN EP); **A45B 25/14** (2013.01 - CN EP); **A45B 25/16** (2013.01 - CN EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3903625 A1 20211103**; **EP 3903625 A4 20221005**; **EP 3903625 B1 20230524**; CN 110074528 A 20190802; CN 110074528 B 20240412; JP 2022517553 A 20220309; JP 7154658 B2 20221018; WO 2020140439 A1 20200709

DOCDB simple family (application)

**EP 19907514 A 20190817**; CN 201811646820 A 20181230; CN 2019101228 W 20190817; JP 2021538416 A 20190817