

Title (en)
MEDICAL OR DENTAL TOOL HOLDER COMPRISING A MULTI-STEP TRANSMISSION ARRANGEMENT

Title (de)
ÄRZTLICHES ODER ZAHNÄRZTLICHES HANDSTÜCK MIT MEHRSTUFIGER GETRIEBEANORDNUNG

Title (fr)
PIECE A MAIN MEDICALE OU DENTAIRE POURVUE D'UN ENSEMBLE D'ENGRENAGES MULTIETAGE

Publication
EP 1565121 A1 20050824 (DE)

Application
EP 03775383 A 20031121

Priority
• DE 10255120 A 20021126
• EP 0313089 W 20031121

Abstract (en)
[origin: WO2004047664A1] The invention relates to a medical or dental tool holder (1) comprising a treatment tool driven by a driving mechanism (11) by means of a transmission arrangement (5). Said transmission arrangement (5) contains at least two successively mounted planetary-gear sets (20, 30) which respectively comprise a sun gear (22, 32) mounted on a drive shaft (21, 31), a planetary gear carrier (23, 33) provided with a plurality of homogeneously distributed planetary gears (24, 34) interacting with the sun gear (22, 32), and an internal ring gear (25, 35) which is fixed to the housing, surrounds the planetary gears (24, 34) and is provided with internal toothing (26, 36). The planetary gear carrier (23) of at least one transmission step (20) is used as the drive shaft (31) and the carrier of the sun gear (32) for the following transmission step (30). In order to increase the stability of the arrangement, the drive shaft (21, 31) for each transmission stage (20, 30) is extended by means of the sun gear (22, 32) driven by the same, and the planetary gear carrier (23, 33) pertaining to said sun gear (22, 32) is rotatably arranged on the extension.

IPC 1-7
A61C 1/18; **A61B 17/16**

IPC 8 full level
A61B 17/16 (2006.01); **A61C 1/18** (2006.01)

CPC (source: EP US)
A61B 17/1624 (2013.01 - EP US); **A61C 1/185** (2013.01 - EP US)

Citation (search report)
See references of WO 2004047664A1

Designated contracting state (EPC)
AT CH DE FR IT LI

DOCDB simple family (publication)
WO 2004047664 A1 20040610; DE 10255120 A1 20040603; EP 1565121 A1 20050824; JP 2006507069 A 20060302; JP 4398870 B2 20100113; US 2006121412 A1 20060608; US 7448869 B2 20081111

DOCDB simple family (application)
EP 0313089 W 20031121; DE 10255120 A 20021126; EP 03775383 A 20031121; JP 2004554413 A 20031121; US 53678905 A 20051114