

Title (en)

METHOD FOR TAPERING BRISTLE OF A TOOTHBRUSH BY A MECHANICAL METHOD

Title (de)

VERFAHREN ZUR BORSTENABSCHRÄGUNG BEI EINER ZAHNBÜRSTE ANHAND EINES MECHANISCHEN VERFAHRENS

Title (fr)

PROCÉDÉ POUR EFFILER LES POILS D'UNE BROSSSE À DENTS AU MOYEN D'UN PROCÉDÉ MÉCANIQUE

Publication

EP 2353433 A4 20170802 (EN)

Application

EP 09823751 A 20090831

Priority

- KR 2009004864 W 20090831
- KR 20080105153 A 20081027
- KR 20090030366 A 20090408

Abstract (en)

[origin: EP2353433A2] The present invention relates to a method for tapering bristle of a toothbrush using grinding drums which have protrusions (11) with a height of 1.5 to 7.0mm, and which rotate in the vertical and horizontal directions, said method comprising a step of connecting the grinding drums in parallel, such that the grinding drums are arranged in sequence wherein the heights of the protrusions (11) of each of the grinding drums are gradually decreased, and a step of enabling the toothbrush with a non-tapered bristle to pass through each of the grinding drums in series such that the bristle can be ground. The method of the present invention produces highly tapered bristle having a tapered length of 5mm or longer and an end thickness of 0.02mm or less even without immersing bristle into chemicals, and prevents thermal deformations which may otherwise occur in the tapering process performed by a mechanical method.

IPC 8 full level

A46D 1/10 (2006.01); **A46D 9/02** (2006.01)

CPC (source: EP KR US)

A46D 1/0276 (2013.01 - EP US); **A46D 1/06** (2013.01 - KR); **A46D 1/10** (2013.01 - KR); **A46D 9/02** (2013.01 - EP US); **A46B 2200/1066** (2013.01 - EP US)

Citation (search report)

- [Y] WO 2006129895 A1 20061207 - KWON YOUNG-JUN [KR], et al
- [Y] WO 2006062265 A1 20060615 - KWON YOUNG-JUN [KR], et al
- [A] WO 2007000922 A1 20070104 - LION CORP [JP], et al
- [A] JP 2008005993 A 20080117 - LION CORP
- See references of WO 2010050671A2

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

EP 2353433 A2 20110810; **EP 2353433 A4 20170802**; AU 2009310757 A1 20100506; AU 2009310757 B2 20111006; CN 102186377 A 20110914; CN 102186377 B 20140312; JP 2012506723 A 20120322; JP 5603874 B2 20141008; KR 100900805 B1 20090604; RU 2470564 C1 20121227; US 2011233988 A1 20110929; WO 2010050671 A2 20100506; WO 2010050671 A3 20100708

DOCDB simple family (application)

EP 09823751 A 20090831; AU 2009310757 A 20090831; CN 200980141047 A 20090831; JP 2011533093 A 20090831; KR 20090030366 A 20090408; KR 2009004864 W 20090831; RU 2011120972 A 20090831; US 200913122868 A 20090831