Title (en)

Expandable curler

Title (de)

Ausdehnbarer Lockenwickler

Title (fr)

Bigoudi expansible

Publication

EP 2133004 A1 20091216 (EN)

Application

EP 08425414 A 20080611

Priority

EP 08425414 A 20080611

Abstract (en)

An expandable curler (1) by which the hair winding no longer requires a particular skill, because the strain imparted by the curler to the hairs no longer depends on the strain applied by the operator throughout the winding operation, and wherein possible differences in strain caused by the humidity or by the drying are compensated by the curler, which consequently expands or contracts itself, comprises a curler body split in two or more rigid longitudinal sectors (2, 3) forming together a winding surface (4, 5) receiving an amount of wound hairs in a contracted configuration; locking means (9, 10) of said sectors (2, 3) in said contracted configuration; and elastic means (8), housed inside said sectors (2, 3), apt to apply on said sectors (2, 3) a predetermined elastic force expanding the winding surface 4, 5) and determining a strain state at the wound hairs until the reaching of a balance between inner elastic force and strain applied to the wound hairs, when said locking means (9, 10) are deactivated.

IPC 8 full level

A45D 2/20 (2006.01); **A45D 2/24** (2006.01); A45D 2/36 (2006.01)

CPC (source: EP US)

A45D 2/20 (2013.01 - EP US); **A45D 2/24** (2013.01 - EP US); A45D 2/362 (2013.01 - EP US)

Citation (applicant)

- US 5020552 A 19910604 - HOLLENBERG DETLEF [DE], et al
- US 3707155 A 19721226 - LEMBERG ALFRED A
- JP 2000060628 A 20000229 - MATSUSHITA ELECTRIC WORKS LTD
- JP 2001037528 A 20010213 - MATSUSHITA ELECTRIC WORKS LTD
- JP 2005026354 A 20050127 - TOSHIBA CORP

Citation (search report)

- [DA] US 5020552 A 19910604 - HOLLENBERG DETLEF [DE], et al
- [A] US 3583409 A 19710608 - RIOS ROBERT
- [A] WO 2006025442 A1 20060309 - KIKUBOSHI CORP [JP], et al

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2133004 A1 20091216; US 2012017933 A1 20120126; WO 2009150201 A1 20091217

DOCDB simple family (application)

EP 08425414 A 20080611; EP 2009057238 W 20090611; US 99717909 A 20090611