

Title (en)
PROCESS FOR THE MANUFACTURE OF SPIRALLED BRISTLES

Title (de)
VERFAHREN ZUR HERSTELLUNG SPIRALIGER BORSTEN

Title (fr)
PROCEDE DE FABRICATION DE SOIES SPIRALEES

Publication
EP 0874925 B1 19991208 (DE)

Application
EP 96931013 A 19960904

Priority
• DE 19533816 A 19950913
• EP 9603874 W 19960904

Abstract (en)
[origin: US5985192A] PCT No. PCT/EP96/03874 Sec. 371 Date Aug. 11, 1998 Sec. 102(e) Date Aug. 11, 1998 PCT Filed Sep. 4, 1996 PCT Pub. No. WO97/10374 PCT Pub. Date Mar. 20, 1997The invention relates to a method for the manufacture of screwlike bristles by extruding monofilaments. In order to provide a method with which screwlike bristles can be inexpensively manufactured in the same way as conventional bristles with an identical, predeterminable quality, a monofilament having a non-circular cross-section is extruded and is prestretched after drawing off, accompanied by a reduction in its cross-section, followed by further stretching, twisting to a screwlike bristle material over at least part of its length and then stabilization by shrinkage. It is possible to extrude a monofilament with an oval or polygonal cross-section or having a core and at least one axially parallel rib. According to a further method, at least two monofilaments are prestretched on drawing off, accompanied by a reduction of their cross-section, followed by further stretching, twisting together to give a screwlike bristle material and stabilization by heat shrinkage.

IPC 1-7
D01D 5/253; **D01F 8/04**; **A46D 1/00**

IPC 8 full level
A46D 1/00 (2006.01); **D01D 5/253** (2006.01); **D01F 6/00** (2006.01); **D01F 8/04** (2006.01); **D02G 1/02** (2006.01)

CPC (source: EP KR US)
A46D 1/00 (2013.01 - EP KR US); **D01D 5/253** (2013.01 - EP KR US); **D01F 8/04** (2013.01 - EP KR US)

Cited by
DE102013007870A1; WO2014180560A1

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

DOCDB simple family (publication)
US 5985192 A 19991116; AR 003562 A1 19980805; AT E187506 T1 19991215; AU 6986796 A 19970401; AU 700069 B2 19981217; BR 9610578 A 19990706; CA 2230799 A1 19970320; CA 2230799 C 20071113; CN 1077154 C 20020102; CN 1209175 A 19990224; CZ 287818 B6 20010214; CZ 70398 A3 19980617; DE 19533816 A1 19970320; DE 59603889 D1 20000113; EP 0874925 A1 19981104; EP 0874925 B1 19991208; ES 2140130 T3 20000216; GR 3032901 T3 20000731; HU 220740 B1 20020528; HU P9901181 A2 19990830; HU P9901181 A3 20000728; IL 123387 A0 19980924; IL 123387 A 20020310; IN 188936 B 20021123; JP 3792721 B2 20060705; JP H11511812 A 19991012; KR 100666766 B1 20070517; KR 19990044379 A 19990625; MX 9802011 A 19980830; NO 310664 B1 20010806; NO 981084 D0 19980312; NO 981084 L 19980312; NZ 330177 A 19990128; PL 182726 B1 20020228; PL 325522 A1 19980803; PT 874925 E 20000531; RO 119370 B1 20040830; RU 2145367 C1 20000210; SK 24998 A3 19981104; SK 281340 B6 20010212; TR 199800456 T1 19980521; TW 379262 B 20000111; UA 51674 C2 20021216; WO 9710374 A1 19970320; ZA 967702 B 19970325

DOCDB simple family (application)
US 2989998 A 19980811; AR 10432096 A 19960911; AT 96931013 T 19960904; AU 6986796 A 19960904; BR 9610578 A 19960904; CA 2230799 A 19960904; CN 96196937 A 19960904; CZ 70398 A 19960904; DE 19533816 A 19950913; DE 59603889 T 19960904; EP 9603874 W 19960904; EP 96931013 A 19960904; ES 96931013 T 19960904; GR 20000400596 T 20000308; HU P9901181 A 19960904; IL 12338796 A 19960904; IN 1587CA1996 A 19960906; JP 53282596 A 19960904; KR 19980701623 A 19980303; MX 9802011 A 19980313; NO 981084 A 19980312; NZ 33017796 A 19960904; PL 32552296 A 19960904; PT 96931013 T 19960904; RO 9800611 A 19960904; RU 98107323 A 19960904; SK 24998 A 19960904; TR 9800456 T 19960904; TW 85110958 A 19960907; UA 98041878 A 19960904; ZA 967702 A 19960912