

Title (en)

SPRING INTERIOR AND METHOD OF MAKING SAME

Title (de)

FEDERKERN UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

PARTIE INTERIEURE DE MATELAS A RESSORTS ET PROCEDE DE FABRICATION ASSOCIE

Publication

EP 1052920 A4 20010110 (EN)

Application

EP 98957846 A 19981112

Priority

- CH 262097 A 19971113
- CH 47098 A 19980227
- US 9824110 W 19981112

Abstract (en)

[origin: WO9925509A1] The spring interior (10) comprises springs (12) with different spring constants (hardness). The variation of the spring constant is effected by changing the average radius of the windings (13) between the central winding (15) and the two end rings (14) of each individual spring. With a spring winding machine (21) whose bending tools can be set and adjusted by software during the production, in this manner spring interiors (10) may be manufactured which comprise any amount of zones of differing hardness. With this, all springs (12) consist of wire with the same diameter, the same end ring (14) diameter and the same height, and the automatic manufacture may be effected without conversion of the spring interior assembly automatic machines.

IPC 1-7

A47C 23/04

IPC 8 full level

A47C 23/053 (2006.01); **A47C 23/043** (2006.01); **A47C 27/06** (2006.01); **A47C 27/07** (2006.01); **A47C 31/12** (2006.01); **B21F 27/16** (2006.01); **B21F 33/04** (2006.01); **B21F 35/00** (2006.01)

CPC (source: EP)

A47C 23/0433 (2013.01); **A47C 27/062** (2013.01); **A47C 31/123** (2013.01); **B21F 33/04** (2013.01); **B21F 35/00** (2013.01)

Citation (search report)

- [X] US 3386561 A 19680604 - WALTER SPUHL
- [YA] GB 2104620 A 19830309 - SPUEHL AG [CH]
- [Y] GB 595887 A 19471219 - FREDERICK G HODGES JR
- [A] US 3906766 A 19750923 - SATO TAKASHI
- [A] US 4672549 A 19870609 - SAXTON RICHARD E [US]

Cited by

DE102008022119A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9925509 A1 19990527; AT E258402 T1 20040215; AU 1400799 A 19990607; DE 69821394 D1 20040304; DE 69821394 T2 20040701; EP 1052920 A1 20001122; EP 1052920 A4 20010110; EP 1052920 B1 20040128; ES 2210842 T3 20040701; JP 2003517374 A 20030527; JP 4623827 B2 20110202

DOCDB simple family (application)

US 9824110 W 19981112; AT 98957846 T 19981112; AU 1400799 A 19981112; DE 69821394 T 19981112; EP 98957846 A 19981112; ES 98957846 T 19981112; JP 2000520932 A 19981112