

Title (en)
Method of manufacturing an opening roller for an open-end-spinning device and opening roller produced by such a method

Title (de)
Verfahren zur Herstellung einer Auflösewalze einer Offenend-Spinnvorrichtung sowie eine mit Hilfe eines solchen Verfahrens hergestellte Auflösewalze

Title (fr)
Procédé pour la fabrication d'un cylindre peigneux pour une machine à filer à bout libre et un cylindre peigneux fabriqué à l'aide de cette méthode

Publication
EP 1233088 A3 20030702 (DE)

Application
EP 02000933 A 20020116

Priority
DE 10106673 A 20010214

Abstract (en)
[origin: EP1233088A2] To produce a fiber loosening roller for an open-end spinner, to break the sliver down into separate fibers for spinning, a sawtooth wire is shaped to fit the required clothing carrier, as the clothing to fit into a groove. The shaped wire is hardened. To produce the fiber loosening roller, for an open-end spinner, the sawtooth wire for the clothing is shaped on a body with a circumference which matches the carrier at the roller. The shaped sawtooth wire remains on the body, or is fitted to the carrier while it is hardened. The ends of the sawtooth wire are ground. The wire is hardened by induction using a high frequency current. The surface of the wire clothing is hardened by induction at the teeth by eddy currents with a frequency of ≥ 1000 kHz and especially 1500-2000 kHz. The wire is hardened within a controlled atmosphere. The wire is relaxed by a heat treatment after hardening, and blasted together with glass beads. The wire clothing is demagnetized, and any flash is removed chemically. The wire clothing is clad with a nickel coating. The teeth are ground against their working direction while the wire is in place on the carrier, for the carrier and the grinding disk to be rotated in opposite directions. Before processing, the wire is not hardened, and the carrier is of a material which cannot be hardened e.g. a low-carbon steel. The start and/or end of the sawtooth wire is welded. The wire can be coated with titanium nitride, using a plasma cladding process. An Independent claim is included for a fiber loosening roller with a clothing of a sawtooth wire (20), as a steel wire at least partially hardened after shaping. Preferred Features: The sawtooth wire is a hardened wire, after laying on the carrier (10). The clothing wire has a side groove at the foot of the teeth.

IPC 1-7
D01H 4/32; **D01G 15/88**

IPC 8 full level
D01G 15/88 (2006.01); **D01H 4/32** (2006.01)

CPC (source: EP US)
D01H 4/32 (2013.01 - EP US)

Citation (search report)

- [XA] US 4211583 A 19800708 - EADIE BRIAN K M [GB], et al
- [XA] EP 0953662 A1 19991103 - GRAF & CO AG [CH]

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EP1612307A3

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

DOCDB simple family (publication)
EP 1233088 A2 20020821; **EP 1233088 A3 20030702**; CZ 2002417 A3 20021016; DE 10106673 A1 20020829; EP 1493855 A2 20050105; EP 1493855 A3 20051130; US 2002124546 A1 20020912; US 6978594 B2 20051227

DOCDB simple family (application)
EP 02000933 A 20020116; CZ 2002417 A 20020204; DE 10106673 A 20010214; EP 04022903 A 20020116; US 7178002 A 20020207