Title (en)
APPARATUS FOR LOOSENING THE FIBRES OF A RAW TISSUE WEB AND CORRESPONDING METHOD

Title (de)
VORRICHTUNG ZUR LOCKERUNG DER FASERN EINER ROHEN TISSUE-PAPIER-BAHN UND ENTSPRECHENDES VERFAHREN

Title (fr)
APPAREIL POUR DELIER LES FIBRES D'UNE BANDE D'OUATE DE CELLULOSE BRUTE ET PROCEDE CORRESPONDANT

Publication
**EP 1797239 A1 20070620 (EN)**

Application
**EP 04790182 A 20041007**

Priority
EP 2004011225 W 20041007

Abstract (en)
[origin: WO2006037365A1] Apparatus for loosening the fibers (16) raw tissue web (7) before converting to the tissue product, the apparatus comprising: a first pair of rollers (1) defining a first nip (8) for introducing the tissue web (7), the first nip being at least as a large as the thickness of the tissue web, one roller (3) of the first pair of rollers having protuberances (12) extending about the entire circumference of the roller and being separated from each other in the longitudinal direction of the roller, the other roller (4) of the first pair of rollers being formed complementary to the one roller thereof, so that the tissue web is flexed in the machine direction (MD); and/or a second pair of rollers (2) defining a second nip (9) for introducing the tissue web (7), the second nip being at least as large as the thickness of the tissue web, one roller (5) of the second pair of rollers having protuberances (10) being at least separated in a direction of the circumference of the roller, the other roller (6) of the second pair of rollers being formed complementary to the one roller thereof, so that the tissue web is flexed in the cross-machine direction (CD). Further the present invention also suggests a corresponding method.

IPC 8 full level
**D21F 11/14** (2006.01)

CPC (source: EP)
**D21F 11/14** (2013.01)

Citation (search report)
See references of WO 2006037365A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
**WO 2006037365 A1 20060413**; AT E421612 T1 20090215; DE 602004019257 D1 20090312; EP 1797239 A1 20070620;
EP 1797239 B1 20090121; ES 2319773 T3 20090512

DOCDB simple family (application)
**EP 2004011225 W 20041007**; AT 04790182 T 20041007; DE 602004019257 T 20041007; EP 04790182 A 20041007; ES 04790182 T 20041007