

Title (en)

Process for hardening of saw-tooth and all-steel card clothing

Title (de)

Verfahren zum Härteln von Sägezahn- und Ganzstahlgarnituren

Title (fr)

Procédé de durcissement de garnitures de cardage en dent de scie et tout-acier

Publication

EP 1728878 B1 20130605 (DE)

Application

EP 06008191 A 20060420

Priority

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Abstract (en)

[origin: DE102005025627B3] Production of sawtooth wire clothing for textile carding comprises cutting saw teeth in a wire and then hardening it by heating it in a protective atmosphere to an austenite-forming temperature and rapidly cooling it. The wire is then annealed to reduce its brittleness or increase its toughness. An independent claim is included for plant for carrying out the production method comprising a heating chamber with a protective gas supply pipe (40) and a burner (50). The burner is fitted with a mixer which supplies fuel gas and an oxidant in a predetermined ratio.

IPC 8 full level

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CPC (source: EP KR US)

B21F 45/10 (2013.01 - KR); **C21D 1/18** (2013.01 - KR); **C21D 9/24** (2013.01 - EP US); **C21D 9/26** (2013.01 - EP US);
C21D 9/52 (2013.01 - EP US); **D01G 15/88** (2013.01 - EP US)

Citation (examination)

US 5096506 A 19920317 - HOLLINGSWORTH JOHN D [US]

Cited by

EP2942425A1; CN106460086A; RU2682530C2; EP3597802A1; US10344347B2; US11414792B2; WO2015169797A1; WO2015197150A1

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JP 2006336108 A 20061214; JP 5378640 B2 20131225; KR 20060126394 A 20061207; TW 200712273 A 20070401;
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JP 2006153132 A 20060601; KR 20060049803 A 20060602; TW 95119371 A 20060601; US 44498506 A 20060601