

Title (en)
DEVICE FOR EMBOSSING AND SATIN-FINISHING A FLAT MATERIAL

Title (de)
VORRICHTUNG ZUM PRÄGEN UND SATINIEREN VON FLACHMATERIAL

Title (fr)
DISPOSITIF POUR GAUFREUR ET SATINER UN MATERIAU PLAT

Publication
EP 1324877 B1 20060621 (DE)

Application
EP 01969123 A 20011003

Priority
• CH 0100594 W 20011003
• CH 20122000 A 20001013

Abstract (en)
[origin: US7036347B2] A device for satinizing and simultaneously embossing flat materials that includes at least two embossing rolls. One roll is connected to a driving system. The rolls are adapted to be driven individually or in common and are adapted to be resiliently applied against each other. Pyramidal or conical teeth of the rolls have flattened tips. The teeth of at least one roll are shaped so as to produce embossed signs in corresponding locations of the passing flat material so that the appearance of the embossed signs changes according to at least one of a viewing angle of the observer, a kind, and the position of the lighting source.

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B31F 1/07 (2006.01)

CPC (source: EP US)
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Citation (examination)
• EP 0798106 A1 19971001 - IND CARTARIE TRONCHETTI SPA [IT]
• WO 9748551 A1 19971224 - PERINI FABIO SPA [IT], et al
• US 5670188 A 19970923 - MAY DANIEL R [US], et al

Cited by
EP3415306A1; WO2020002970A1; EP3339012A1; WO2018116156A1; WO2018229557A1; US11298911B2; US11819894B2

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WO 0230661 A1 20020418; AT E330785 T1 20060715; AU 2001289469 B2 20061207; AU 2001289469 B9 20070607; AU 8946901 A 20020422; BR 0114606 A 20031223; BR 0114606 B1 20101019; CA 2425536 A1 20030411; CA 2425536 C 20100907; CN 1212923 C 20050803; CN 1469801 A 20040121; DE 50110279 D1 20060803; EP 1324877 A1 20030709; EP 1324877 B1 20060621; ES 2266253 T3 20070301; JP 2004509794 A 20040402; JP 3944078 B2 20070711; PT 1324877 E 20061130; RU 2375191 C2 20091210; US 2004011107 A1 20040122; US 7036347 B2 20060502; ZA 200302203 B 20040721

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