

Title (en)
Apparatus for reinforcing flat paper blanks

Title (de)
Vorrichtung zum Aussteifen von flachen Werkstücken aus Papier o.dgl.

Title (fr)
Appareil pour renforcer des flans de papier

Publication
EP 0778125 A3 19980408 (DE)

Application
EP 96116926 A 19961022

Priority
DE 19545349 A 19951205

Abstract (en)
[origin: EP0778125A2] The bracing device, e.g. for bags, consists of devices which shape the workpiece into corrugations, e.g. freely rotating discs or belts on freely rotating rollers (14,15,44,45). The sectors of these which grip the workpiece act on the middle plane so that the workpiece is shaped into corrugations. There is a conveyor (29) to clamp the workpieces to each other. This may be a twin belt conveyor, with its clamping ends running over pairs of intermediate support rollers, of which at least one is pressed by the force of a spring against the others.

IPC 1-7
B31B 1/26

IPC 8 full level
B65H 29/12 (2006.01); **B31B 1/00** (2006.01); **B31B 1/26** (2006.01); **B31B 50/02** (2017.01); **B31F 1/00** (2006.01); **B65H 29/70** (2006.01)

CPC (source: EP KR US)
B31B 70/008 (2017.07 - KR); **B31F 1/0019** (2013.01 - EP US); **B31B 50/26** (2017.07 - EP US)

Citation (search report)

- [X] EP 0004749 A2 19791017 - UNION CARBIDE CORP [US]
- [X] GB 1400597 A 19750716 - TOKYO AUTOMAITC MACHINERY WORK
- [X] DE 1779533 A1 19710930 - WINDMOELLER & HOELSCHER
- [A] GB 1424182 A 19760211 - PACKOTOM BV

Designated contracting state (EPC)
AT DE ES FR GB IT

DOCDB simple family (publication)
EP 0778125 A2 19970611; **EP 0778125 A3 19980408**; BR 9605851 A 19980825; CZ 331096 A3 19970611; DE 19545349 A1 19970612; JP H09165132 A 19970624; KR 970033791 A 19970722; TW 377318 B 19991221; US 5871434 A 19990216

DOCDB simple family (application)
EP 96116926 A 19961022; BR 9605851 A 19961204; CZ 331096 A 19961111; DE 19545349 A 19951205; JP 32244996 A 19961203; KR 19960061891 A 19961205; TW 85114320 A 19961121; US 76666596 A 19961204