

Title (en)  
Method and apparatus for making a hollow cylinder with curved bulged structure

Title (de)  
Verfahren und Vorrichtung zu Herstellung eines wölbstrukturierten Hohlzylinders

Title (fr)  
Procédé et dispositif de fabrication d' un cylindre bombé structuré

Publication  
**EP 1151811 A3 20030205 (DE)**

Application  
**EP 01110224 A 20010425**

Priority  
DE 10021456 A 20000503

Abstract (en)  
[origin: EP1151811A2] To produce a hollow honeycomb cylinder it is forced by a press roller (28,29) against supports on a die (15) and rotated, against the roller rotation. The supports form the outer surface of a cylinder segment, with a radius matching the radius of the hollow cylinder (100). During the rotation, the honeycomb structure is embossed without slipping at its inner wall.

IPC 1-7  
**B21D 15/00; B21D 17/04**

IPC 8 full level  
**B21D 15/00** (2006.01)

CPC (source: EP)  
**B21D 15/00** (2013.01)

Citation (search report)

- [XY] US 4487048 A 19841211 - FREI SIEGFRIED [CH]
- [Y] GB 1361437 A 19740724 - YORKSHIRE IMPERIAL METALS LTD
- [A] US 5916317 A 19990629 - WILLOUGHBY OTIS [US], et al
- [A] US 3407638 A 19681029 - GREIS HOWARD A, et al
- [A] US 5349837 A 19940927 - HALASZ ANDREW [US], et al

Cited by  
US8438883B2; CN110523824A; EP1964960A3; CN107891079A; EP1872880A1; EP1872881A3; US8266931B2

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DOCDB simple family (publication)  
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