

Title (en)
Method and apparatus for deep drawing metal blanks for making stepped articles

Title (de)
Verfahren und Vorrichtung zum Tiefziehen von Metallrohlingen zur Hertsellung von gestuften Artikeln

Title (fr)
Procédé et dispositif d'emboutissage d'ébauches métalliques pour la production d'articles étagés

Publication
EP 1598126 A1 20051123 (EN)

Application
EP 04356077 A 20040519

Priority
EP 04356077 A 20040519

Abstract (en)
The apparatus (1) comprises : a) a cut edge (2) able to cut blanks (7) from a metal strip (6), b) a pair of blank holders (3), an upper punch (30) and a lower draw ring (31), c) a lower tool (4), typically in a fixed position, comprising a die core ring (40) and a die core (42), said die core ring (40, 40') having a shaped profile (400) and a sloped stepped part (41) having at least one step (410), d) an upper tool (5) and a punch core (51), and actuating means, and is characterised in that said punch core (51) includes at least one upper pressure sleeve (52, 52') able to cooperate axially with said step (410) so as to form said ledge (920, 920'), and a said "small" punch core (53) able to cooperate axially with said die plate (42). <?? >Advantages : stepped drawn articles exhibiting no pleats. <IMAGE>

IPC 1-7
B21D 51/44

IPC 8 full level
B21D 51/44 (2006.01)

CPC (source: EP)
B21D 51/44 (2013.01)

Citation (search report)
• [AX] WO 03004716 A2 20030116 - CONTAINER DEV LTD [US]
• [AX] GB 2193140 A 19880203 - REDICON CORP
• [A] WO 0240193 A2 20020523 - HAAR ALFONS INC [US]
• [A] US 4587826 A 19860513 - BULSO JR JOSEPH D [US], et al
• [A] EP 1126939 B

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)
EP 1598126 A1 20051123; WO 2005110642 A1 20051124

DOCDB simple family (application)
EP 04356077 A 20040519; EP 2005006049 W 20050517