

Title (en)
SHELL FOR CAN

Publication
EP 0151298 B1 19890503 (EN)

Application
EP 84115831 A 19841219

Priority
US 57124384 A 19840116

Abstract (en)
[origin: EP0292982A1] The disclosure relates to a novel shell such as used in the manufacture of can ends, and to a method and tools for making such a shell. A non-circular blank (B) having rounded corners is cut from thin metal. The blank is oblong in a direction transverse to the grain of the metal. A first set of tools separates the blanks and forms a substantially flat central panel (10) and an upward-extending chuck wall (12) about the edge of the panel to produce a partially formed shell. The junction area between said panel and said chuck wall has a relatively large radius of curvature at this time. A second set of tools forms in the blank a lip (53) extending outward from the upper end of the chuck wall and generally parallel to said panel; then the panel and the chuck wall are separately gripped, followed by relative movement between the panel and the chuck wall while wrapping the junction area around a forming punch to form a panel wall (11) in said junction area extending upward from the inner part of said chuck wall. Then the lip is formed into a curl edge section (13) which ends in an inner curl diameter that is round and concentric with the chuck wall, and has progressively lesser radii of curvature from upper end of the chuck wall to the inner curl diameter. The resulting shell is characterised by a curl diameter being round and concentric with the chuck wall and essentially uniformly spaced therefrom, and by having an essentially constant thickness throughout the central panel, the panel wall and chuck wall and the curved section therebetween.

IPC 1-7
B21D 51/44

IPC 8 full level
B21D 51/44 (2006.01); **B65D 8/20** (2006.01)

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

Cited by
CN112222271A

Designated contracting state (EPC)
BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0292982 A1 19881130; EP 0292982 B1 19910626; AU 1262288 A 19880602; AU 3751085 A 19850725; AU 573675 B2 19880616; AU 590473 B2 19891102; CA 1250488 A 19890228; CA 1267854 C 19900417; DE 3478000 D1 19890608; DE 3484750 D1 19910801; EP 0151298 A2 19850814; EP 0151298 A3 19851204; EP 0151298 B1 19890503; HK 62991 A 19910823; HK 9392 A 19920131; JP H0615091 B2 19940302; JP H0647471 A 19940222; JP H0671366 A 19940315; JP H0679376 A 19940322; JP H0771709 B2 19950802; JP H0773766 B2 19950809; JP S60170544 A 19850904; NZ 210588 A 19880108; SG 58391 G 19910823; ZA 85146 B 19850828

DOCDB simple family (application)
EP 88108470 A 19841219; AU 1262288 A 19880301; AU 3751085 A 19850108; CA 471597 A 19850107; DE 3478000 T 19841219; DE 3484750 T 19841219; EP 84115831 A 19841219; HK 62991 A 19910815; HK 9392 A 19920130; JP 15081493 A 19930622; JP 15081593 A 19930622; JP 15082793 A 19930622; JP 559885 A 19850116; NZ 21058884 A 19841217; SG 58391 A 19910722; ZA 85146 A 19850107