

Title (en)  
COLD FORGING FORMER APPARATUS WITH REDIRECTING FUNCTION OF SHAPED OBJECT

Title (de)  
KALTSCHMIEDEFORMVORRICHTUNG MIT UMLENKFUNKTION EINES FORMKÖRPERS

Title (fr)  
APPAREIL DE FORMAGE PAR FORGEAGE À FROID AYANT UNE FONCTION DE REDIRECTION D'UN OBJET FAÇONNÉ

Publication  
**EP 3466560 A4 20200226 (EN)**

Application  
**EP 17803060 A 20170524**

Priority  
• KR 20160064849 A 20160526  
• KR 2017005373 W 20170524

Abstract (en)  
[origin: EP3466560A1] A cold forging former apparatus with a redirecting function of a shaped object is disclosed. The present invention includes: a main mold part including a first guide, a guide slope, an ejector pin, and a second guide; and a punch mold part having a punch pin. While a shaped object is put into the main mold part horizontally through the first guide by the punch pin and is then vertically erected by sliding on the guide slope, the ejector pin starts to move toward a vertical inlet/outlet portion, places the shaped object on a support and an ejector pin top, and guides the shaped object to the vertical inlet/outlet portion.

IPC 8 full level  
**B21J 13/10** (2006.01); **B21J 9/02** (2006.01); **B21J 13/02** (2006.01); **B21J 13/12** (2006.01); **B21J 13/14** (2006.01); **B21K 27/04** (2006.01)

CPC (source: EP KR)  
**B21J 9/022** (2013.01 - EP); **B21J 13/02** (2013.01 - EP KR); **B21J 13/10** (2013.01 - KR); **B21J 13/12** (2013.01 - EP KR); **B21J 13/14** (2013.01 - EP KR); **B21K 27/04** (2013.01 - EP)

Citation (search report)  
• [XYI] US 5657663 A 19970819 - MIYAHARA HIROSHI [JP], et al  
• [Y] US 3466917 A 19690916 - EAKIN GERALD R, et al  
• [A] US 4430882 A 19840214 - STEINHAUSER ULRICH [CH]  
• [A] US 4351180 A 19820928 - ALLEBACH GENE E  
• See references of WO 2017204541A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3466560 A1 20190410**; **EP 3466560 A4 20200226**; **EP 3466560 B1 20210630**; CN 109070186 A 20181221; CN 109070186 B 20200331; JP 2019511369 A 20190425; JP 6599045 B2 20191030; KR 101712957 B1 20170322; WO 2017204541 A1 20171130

DOCDB simple family (application)  
**EP 17803060 A 20170524**; CN 201780024554 A 20170524; JP 2019506332 A 20170524; KR 20160064849 A 20160526; KR 2017005373 W 20170524