

Title (en)  
Method and apparatus for producing hollow rack bar

Title (de)  
Verfahren und Vorrichtung zur Herstellung einer hohlen Zahnstange

Title (fr)  
Méthode et dispositif pour la fabrication d'une crémaillère creuse

Publication  
**EP 1769859 B1 20080820 (EN)**

Application  
**EP 05021222 A 20050929**

Priority  
EP 05021222 A 20050929

Abstract (en)  
[origin: EP1769859A1] A system for forging a rack bar from a blank pipe. A blank pipe (1) is held between dies (2 and 3). Stockers (7L and 7R) are arranged on respective sides of the die set. In the stockers (7L and 7R), left-handed shuttles (6L 1 ,6L 2 ,6L 3 ,.....6L n and right-handed shuttles (6R 1 ,6R 2 ,6R 3 ,.....6R n ) are stored. First, a left-handed presser rod (5L) inserts the shuttles (6L 1 ) to the blank pipe from the left-handed stocker (7L). Then, a right-handed presser rod (5R) inserts the shuttles (6R 1 )to the blank pipe from the right-handed stocker (7R), causing the shuttles (6L 1 ) to be entrained and returned to the left-handed stocker (7L). Vertical shift movement is alternately executed between the left-handed and right-handed stockers (7L and 7R), so that a shuttle of step-likely increased working height is selected for executing a working process.

IPC 8 full level  
**B21K 1/76** (2006.01); **B21C 37/20** (2006.01)

CPC (source: EP)  
**B21C 37/20** (2013.01); **B21K 1/063** (2013.01); **B21K 1/767** (2013.01)

Cited by  
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