

Title (en)  
FASTENER MANUFACTURING APPARATUS AND METHOD

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR HERSTELLUNG VON BEFESTIGUNGSELEMENTEN

Title (fr)  
APPAREIL ET METHODE DE FABRICATION D'UN DISPOSITIF DE FIXATION

Publication  
**EP 1877206 A4 20120829 (EN)**

Application  
**EP 05745049 A 20050505**

Priority  
US 2005015680 W 20050505

Abstract (en)  
[origin: WO2006121427A1] An assembly line (10) for continuously manufacturing fasteners (12) from a rod (14) with a groove (18) for receiving a wire for retaining the fasteners (12) in a strip includes a receiver for receiving the rod (14). A die press (22) is arranged to receive the rod (14) from the receiver and includes a piercing member (170) for piercing an aperture (38) in each fastener (12) and a cutting member (180) for cutting each fastener (12) from the rod (14). A tapping member (32) provides ribs (36) to an inner wall of the aperture (38) formed in the fastener (12) by the piercing member (170). An inspector (42) inspects the internal rib (36) formed into the inner wall of the aperture (38) disposed in the fastener (12) verifying exactness of the aperture (38) and the rib (36). A wire inserted (94) inserts the wire into the groove (18) forming a strip of connected fasteners (12). The inserted (94) receives the fasteners (12) sequentially from the inspector (42) after verification of the exactness of the aperture (38) disposed in each fastener (12).

IPC 8 full level  
**B21H 3/02** (2006.01); **B21D 53/24** (2006.01); **F16B 27/00** (2006.01)

CPC (source: EP)  
**B21D 53/24** (2013.01); **B21H 8/00** (2013.01); **B21K 1/66** (2013.01); **F16B 27/00** (2013.01)

Citation (search report)

- [YD] US 3845860 A 19741105 - LADOUCEUR H, et al
- [Y] US 4315688 A 19820216 - PRYOR TIMOTHY R
- [Y] US 3775791 A 19731204 - GRUBE W
- [Y] US 3711931 A 19730123 - LADOUCEUR H, et al
- [Y] WO 03016728 A1 20030227 - FABRISTEEL PROD INC [US], et al
- [Y] LALIGANT O ET AL: "Wavelets transform in artificial vision inspection of threading", INDUSTRIAL ELECTRONICS, CONTROL, AND INSTRUMENTATION, 1993. PROCEEDING S OF THE IECON '93., INTERNATIONAL CONFERENCE ON MAUI, HI, USA 15-19 NOV. 1993, NEW YORK, NY, USA,IEEE, 15 November 1993 (1993-11-15), pages 513 - 518, XP010108996, ISBN: 978-0-7803-0891-6, DOI: 10.1109/IECON.1993.339023
- See references of WO 2006121427A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2006121427 A1 20061116**; EP 1877206 A1 20080116; EP 1877206 A4 20120829

DOCDB simple family (application)  
**US 2005015680 W 20050505**; EP 05745049 A 20050505