

Title (en)
PLASTIC FASTENERS, NEEDLES FOR DISPENSING AND METHOD OF MANUFACTURE

Title (de)
BEFESTIGUNGSELEMENTE, APPLIKATIONSNADELN UND HERSTELLUNGSPROZESS

Title (fr)
AGENTS DE FIXATION PLASTIQUES, AIGUILLES D'APPLICATION ET PROCEDE DE REALISATION

Publication
EP 1311434 A4 20040331 (EN)

Application
EP 01955966 A 20010725

Priority
• US 0123451 W 20010725
• US 62533400 A 20000725
• US 74070000 A 20001219

Abstract (en)
[origin: WO0208064A1] A needle (51) particularly well-suited for use in the dispensing of plastic fasteners (21) of the type comprising a filament (15) having a cross-bar (23-1, 23-2) at a first end thereof, each of the cross-bar (23-1, 23-2) and the filament (15) including a first flat side, the first flat sides of the cross-bar (23-1, 23-2) being coplanar. The needle (51) includes a stem portion (53). The stem portion (53) terminates in a tip (57) at its front end and is shaped to define a longitudinal bore (59) and a longitudinal slot (61) for receiving the filament (15) and the cross-bar (23-1, 23-2). The longitudinal bore (59) has a first flat side, and the longitudinal slot (61) has a first flat side, wherein the flat sides are coplanar.

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B65C 7/00

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CPC (source: EP)
B65C 7/00 (2013.01); **B65C 7/003** (2013.01); **G09F 3/12** (2013.01)

Citation (search report)
• [A] US 6064306 A 20000516 - DESCHENES CHARLES L [US], et al
• [A] US 4392906 A 19830712 - HARA SABURO [JP]
• See references of WO 0208064A1

Designated contracting state (EPC)
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WO 0208064 A1 20020131; **WO 0208064 A8 20020328**; **WO 0208064 A9 20021017**; AT E317353 T1 20060215; CA 2416294 A1 20020131; CA 2416294 C 20080930; DE 60117152 D1 20060420; EP 1311434 A1 20030521; EP 1311434 A4 20040331; EP 1311434 B1 20060208

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