

Title (en)

Step by step advancing mechanism for pliers for setting expanding wall plugs or similar applications

Title (de)

Schrittweise arbeitender Vorschubmechanismus für Zangen zum Setzen von Spreizdübeln oder ähnliche Anwendungen

Title (fr)

Mécanisme d'avance pas à pas pour pince d'expansion de chevilles murales et applications analogues

Publication

**EP 0745443 B1 19990428 (FR)**

Application

**EP 96401108 A 19960522**

Priority

FR 9506534 A 19950601

Abstract (en)

[origin: EP0745443A1] The mechanism consists of a toothed rack (27, 28, 29) inside a tool housing equipped with fixed and moving levers (16, 18) and handles (17, 19). The housing contains a spring-loaded ratchet (31) which engages with the racks' teeth, and a lever (35) with a peg (36) to hold the rack in its new position. The rack is connected at one end to a moving jaw (23) which is drawn inside the housing when the tool lever (18) is operated to expand the dowel (1) after inserting it through a hole (6) in a wall or partition (7), while a fixed jaw (13) exerts a thrust against the wall surface. The expansion of the dowel is achieved by drawing on a bolt inserted through it, the head (4) of the bolt being gripped by the moving jaw.

IPC 1-7

**B21J 15/38**

IPC 8 full level

**B21J 15/38** (2006.01); **B25B 7/12** (2006.01); **B25B 27/00** (2006.01)

CPC (source: EP)

**B21J 15/386** (2013.01); **B25B 7/12** (2013.01); **B25B 27/0007** (2013.01)

Cited by

CN108500192A; FR3012056A1; EP3284561A1; US10195721B2; WO2015059635A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0745443 A1 19961204; EP 0745443 B1 19990428;** AT E179350 T1 19990515; DE 69602227 D1 19990602; DE 69602227 T2 20000413; DK 0745443 T3 19991101; ES 2133906 T3 19990916; FR 2734743 A1 19961206; FR 2734743 B1 19970912; GR 3030597 T3 19991029

DOCDB simple family (application)

**EP 96401108 A 19960522;** AT 96401108 T 19960522; DE 69602227 T 19960522; DK 96401108 T 19960522; ES 96401108 T 19960522; FR 9506534 A 19950601; GR 990401680 T 19990623