

Title (en)
Ratchet wrench

Title (de)
Ratschenschlüssel

Title (fr)
Clé à cliquet

Publication
EP 1618997 A1 20060125 (EN)

Application
EP 05021712 A 20030818

Priority
• EP 03018541 A 20030818
• US 45419603 A 20030605

Abstract (en)
A wrench includes a handle (10), a clutch (30), a detent, a controller (40), a gear (20) and a C-ring (21). The handle includes an annular head (11) defining a circular space (12), a pothole (13) not overlapping the circular space, a channel (15) for communicating the circular space with the pothole, a recess (14) and an annular groove (16) both defined in a wall of the circular space. The clutch includes two claws (31) put in the recess and a spring (32) put between the claws. Each of the claws includes a toothed face (33) and a rod (34). The claws can easily be put into the recess since the rods can be moved through the channel. A controller is put rotationally in the pothole for moving the rods. The gear is put in the circular space. The gear includes a toothed face for engagement with the toothed face (22) of one of the claws. The C-ring includes an external edge put in the annular groove, and an internal edge for retaining the annular gear in the circular space.

IPC 8 full level
B25B 13/46 (2006.01)

CPC (source: EP)
B25B 13/463 (2013.01)

Citation (search report)
• [Y] GB 2353746 A 20010307 - LEE JACK [TW]
• [Y] US 6513409 B1 20030204 - LEE DANIEL [TW]
• [YA] EP 1084797 A1 20010321 - HAND TOOL DESIGN CORP [US]
• [A] DE 20201047 U1 20020411 - LEE DANIEL [TW]
• [A] US 6386072 B1 20020514 - YUAN-CHIN CHI [TW], et al
• [A] DE 10238793 A1 20030327 - HU BOBBY [TW]
• [A] US 6382052 B1 20020507 - CHEN SHWU RUU [TW]
• [A] US 6289771 B1 20010918 - HSIEH CHIH-CHING [TW]

Designated contracting state (EPC)
DE FR GB

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EP 1484135 A1 20041208; EP 1484135 B1 20060208; CN 1270873 C 20060823; CN 1572427 A 20050202; DE 60303469 D1 20060420; DE 60303469 T2 20060907; EP 1618997 A1 20060125

DOCDB simple family (application)
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