

Title (en)
PERCUSSION APPARATUS WITH TOOL HOLDER

Publication
EP 0280195 A3 19900328 (EN)

Application
EP 88102374 A 19880218

Priority
• JP 3839787 A 19870221
• JP 16203687 A 19870629

Abstract (en)
[origin: EP0280195A2] A percussion apparatus comprises a vertically extending tubular housing (2), an end cap (28) removably mounted to the lower end of the housing, and a tool holder (34) extending through the end cap as elastically supported thereby and slidably movable axially of the housing. A chisel (18) extends through the holder and has a head located within the housing to be hit by a hammer rod (13) axially reciprocated in the housing. A tool holding device (37) is mounted on the holder outside the end cap for selecting a first condition in which the chisel is prevented from falling off the holder while being allowed to move axially within a limited range, and a second condition in which the chisel is allowed to be completely removed from the holder.

IPC 1-7
B25D 17/08; **B25D 17/24**

IPC 8 full level
B25D 9/04 (2006.01); **B25D 11/12** (2006.01); **B25D 17/08** (2006.01); **B25D 17/24** (2006.01)

CPC (source: EP KR)
B25D 11/125 (2013.01 - EP); **B25D 17/00** (2013.01 - KR); **B25D 17/08** (2013.01 - EP); **B25D 17/24** (2013.01 - EP)

Citation (search report)
• [X] FR 1090212 A 19550329 - KANGO ELECTRIC HAMMERS LTD
• [Y] US 2298719 A 19421013 - MATTHEW O'FARRELL
• [YD] US 4103747 A 19780801 - FINNEY JAMES L
• [A] DE 2243939 A1 19730322 - KANGO ELECTRIC HAMMERS LTD
• [A] GB 2032829 A 19800514 - BOSCH GMBH ROBERT
• [A] GB 618546 A 19490223 - JOHN WILBUR TIERNEY, et al
• [A] GB 399773 A 19331012 - FRANK HILLS
• [A] CH 211989 A 19401031 - BOSCH GMBH ROBERT [DE]
• [A] US 3179185 A 19650420 - MATTHEW O'FARRELL
• [A] US 2432331 A 19471209 - OSGOOD CHARLES F
• [A] US 2823040 A 19580211 - RAYMOND FISCHER HOWARD

Cited by
EP1815946A1; EP0656823A4; EP1604785A3; DE3905248A1; EP2392433A1; US7819203B2; WO2019079560A1; US10814468B2; US11633843B2; US10926393B2; US11059155B2; US11141850B2; US11203105B2; US7523791B2; US11759935B2; US11865687B2

Designated contracting state (EPC)
BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0280195 A2 19880831; **EP 0280195 A3 19900328**; AU 1192088 A 19880825; AU 598102 B2 19900614; JP H0763944 B2 19950712; JP S642878 A 19890106; KR 880009739 A 19881004; KR 920001602 B1 19920220

DOCDB simple family (application)
EP 88102374 A 19880218; AU 1192088 A 19880217; JP 16203687 A 19870629; KR 880001836 A 19880220