

Title (en)
Hand-held multipurpose casing with structure for reversibly extending functional tipped device

Title (de)
Merhzweck Vorrichtung mit hin un Zurückbeweglichem Stift

Title (fr)
Boitier multiusage avec un mouvement alternatif de mine

Publication
EP 1095588 A2 20010502 (EN)

Application
EP 00309353 A 20001024

Priority
KR 19990046282 A 19991025

Abstract (en)
A hand-held multipurpose casing, with a functional tipped device housed within the casing so as to be linearly and reversibly extendible relative to the casing, is disclosed. This casing has a cylinder-type or screw-type actuating unit designed to reversibly extend the functional tipped device. The screw-type actuating unit has two spiral screw engagements, with opposite spiral directions. In an embodiment, the hand-held multipurpose casing has a front barrel, a middle barrel (12), a rear barrel (15), and a functional tipped device holder having a functional tipped device at its front tip and housed within the casing. A cap (16) is fixedly mounted to the rear end of the rear barrel (15), with two holding slots formed on the front end portion of the external surface of the cap at diametrically opposite positions. A screw-type actuating unit movably engages with both the functional tipped device holder and the cap through two spiral screw-type engagements with opposite spiral directions. The above unit thus primarily converts an axial movement of the cap (16) into a rotating action of a rotatable rod (110) and secondarily converts the rotating action of the rotatable rod (110) into an axial movement of the functional tipped device holder. <IMAGE>

IPC 1-7
A45D 40/06

IPC 8 full level
B43K 23/016 (2006.01); **A45D 40/02** (2006.01); **A45D 40/26** (2006.01); **A45D 40/28** (2006.01); **A46B 7/02** (2006.01); **B43K 3/04** (2006.01); **B43K 5/17** (2006.01); **B43K 24/02** (2006.01); **B43K 24/06** (2006.01); **B43K 27/00** (2006.01); **B65D 83/02** (2006.01); **A45D 40/20** (2006.01)

CPC (source: EP KR)
A45D 40/02 (2013.01 - KR); **A45D 40/28** (2013.01 - EP); **A46B 7/023** (2013.01 - EP); **B43K 5/17** (2013.01 - EP); **B43K 7/005** (2013.01 - EP); **B43K 8/003** (2013.01 - EP); **B43K 24/06** (2013.01 - EP); **A45D 2040/005** (2013.01 - EP); **A45D 2040/204** (2013.01 - EP); **A45D 2040/208** (2013.01 - EP); **A46B 2200/1046** (2013.01 - EP)

Cited by
CN107031238A; EP2705959A3; EP2875964A1; EP1980414A1; US7530751B2; WO2019043956A1; WO2007060438A3

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
EP 1095588 A2 20010502; **EP 1095588 A3 20030402**; **EP 1095588 B1 20071212**; AU 7969100 A 20010508; CN 1236976 C 20060118; CN 1293933 A 20010509; CN 1294081 A 20010509; JP 2001186922 A 20010710; JP 4702816 B2 20110615; KR 20010000042 A 20010105; KR 200175523 Y1 20000315; WO 0130194 A1 20010503

DOCDB simple family (application)
EP 00309353 A 20001024; AU 7969100 A 20001023; CN 00133011 A 20001025; CN 99124585 A 19991224; JP 2000315396 A 20001016; KR 0001198 W 20001023; KR 19990022989 U 19991025; KR 19990046282 A 19991025