

Title (en)
A SUPPORT DEVICE

Title (de)
STÜTZVORRICHTUNG

Title (fr)
DISPOSITIF DE SUPPORT

Publication
EP 3140607 A4 20171004 (EN)

Application
EP 15811872 A 20150626

Priority
• ZA 201404737 A 20140626
• IB 2015054827 W 20150626

Abstract (en)
[origin: WO2015198282A1] A support device (10) in the form of a plastics plug for supporting material comprising stemming (46) in the form of crushed stone and an explosive charge (48) in a blast drill hole (40) at a position wherein the material is spaced above a bottom wall (42) of the drill hole (40). The support device (10) comprises a cup-shaped material supporting portion (16) in which the material is supported and an elongate shank portion (18) which extends from the material supporting portion (16). The shank portion (18) has a tapering hollow conical configuration and is releasably connected to the material supporting portion (16) in an arrangement permitting separation of the material supporting portion (16) from the shank portion (18) so that the material supporting portion (16) can be used separately in a mid-hole decking application.

IPC 8 full level
F42D 1/18 (2006.01); **F42D 1/08** (2006.01); **F42D 1/20** (2006.01); **F42D 1/22** (2006.01); **F42D 1/24** (2006.01); **F42D 3/04** (2006.01)

CPC (source: EP)
F42D 1/18 (2013.01)

Citation (search report)
• [XY] US 2047774 A 19360714 - GREENE HOWARD H
• [Y] WO 2005033474 A1 20050414 - INTERNAT TECHNOLOGIES LLC [US], et al
• [Y] GB 1030409 A 19660525 - NITROGLYCERIN AB
• [Y] US 4669540 A 19870602 - LUOMA PAAVO [CA], et al
• [XY] CA 2318583 A1 20020225 - HENNESSY THOMAS [CA]
• [Y] FR 977180 A 19510328 - AIR LIQUIDE
• See references of WO 2015198282A1

Cited by
US10619987B1; WO2022200832A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2015198282 A1 20151230; AP 2016009607 A0 20161231; AU 2015278692 A1 20170112; AU 2015278692 B2 20190919; CA 2953468 A1 20151230; CA 2953468 C 20220621; EP 3140607 A1 20170315; EP 3140607 A4 20171004; EP 3140607 B1 20181017; PE 20170023 A1 20170302; ZA 201608337 B 20170830

DOCDB simple family (application)
IB 2015054827 W 20150626; AP 2016009607 A 20150626; AU 2015278692 A 20150626; CA 2953468 A 20150626; EP 15811872 A 20150626; PE 2016002779 A 20150626; ZA 201608337 A 20161202