

Title (en)

DEVICE FOR THE CONSOLIDATION OF GEOLOGICAL FORMATIONS HAVING NO OR ONLY LITTLE STABILITY

Publication

EP 0368838 B1 19930804 (DE)

Application

EP 89890281 A 19891030

Priority

AT 270488 A 19881103

Abstract (en)

[origin: CA2002143A1] Process to protect nonstable or moderately stable, cohesionless to slightly cohesive geologic formations, in particular, in tunnel construction, in which drill holes are first made in the formation and, following completion of the borings, the drilling rod (5) is removed, where, during which removal a hardenable injection material is forced into the drill hole, whereby, using a drilling rod (3), a pointed rod or anchoring element (5) is placed in position in the boring, which element remains in the boring during removal of the drilling rod and solidly connected to the formation by the injection material.

IPC 1-7

E02D 5/80; E21D 20/00

IPC 8 full level

E02D 5/80 (2006.01); **E02D 17/20** (2006.01); **E21D 9/00** (2006.01); **E21D 20/00** (2006.01); **E21D 21/00** (2006.01)

CPC (source: EP US)

E02D 5/80 (2013.01 - EP US); **E21D 9/001** (2013.01 - EP US); **E21D 20/003** (2013.01 - EP US); **E21D 21/0033** (2013.01 - EP US); **E21D 21/0053** (2016.01 - EP US)

Cited by

CN113445519A; FR2669355A1; EP0582554A1; EP3199709A1

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0368838 A1 19900516; EP 0368838 B1 19930804; AT 392517 B 19910425; AT A270488 A 19900915; CA 2002143 A1 19900503; DE 58905148 D1 19930909; JP 2735650 B2 19980402; JP H02232500 A 19900914; US 4979848 A 19901225

DOCDB simple family (application)

EP 89890281 A 19891030; AT 270488 A 19881103; CA 2002143 A 19891102; DE 58905148 T 19891030; JP 28514389 A 19891102; US 43056989 A 19891102