

Title (en)  
REINFORCED SELF-SUPPORTED RETAINING WALL STRUCTURE MAKING USE OF THE ARCHING EFFECT AND A CONSTRUCTION METHOD OF EXCAVATIONS USING THE SAME

Title (de)  
VERSTÄRKTE SELBSTTRAGENDE STÜTZWANDSTRUKTUR MIT NUTZUNG DER BOGENAUSWIRKUNG UND KONSTRUKTIONSVERFAHREN FÜR AUSHUB DAMIT

Title (fr)  
STRUCTURE DE MUR DE RETENUE AUTOPORTÉE RENFORCÉE QUI FAIT USAGE DE L'EFFET DE VOÛTE, ET PROCÉDÉ DE CONSTRUCTION D'EXCAVATIONS UTILISANT CETTE STRUCTURE

Publication  
**EP 2537988 A4 20151118 (EN)**

Application  
**EP 10846233 A 20101209**

Priority  
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• KR 2010008812 W 20101209

Abstract (en)  
[origin: US2012076594A1] In a reinforced self-standing earth retaining structure using an arching effect, a soldier pile integrally formed with a soldier pile insertion portion in a vertical direction in a flange at one end of the soldier pile in which a lagging is inserted is installed at a width B to be perpendicular to the ground. A sheet panel protruding portion is inserted in and connected to the soldier pile insertion portion. A sheet panel protruding portion is serially inserted in a sheet panel insertion portion. A compression support plate protruding portion is inserted in and coupled to the sheet panel insertion portion. A relationship between a length L of a group of serial sheet panels and the width B between two groups of serial sheet panels is  $0.5 \leq L/B \leq 3.0$  in a range of an internal friction angle of earth  $\phi = 10^\circ \sim 34^\circ$  and a range of an adhesive power  $C = 0.0 \sim 5.0$  ton/m<sup>2</sup> so that a back earth pressure is not applied to the front lagging due to the arching effect.

IPC 8 full level  
**E02D 17/04** (2006.01); **E02D 5/04** (2006.01); **E02D 17/08** (2006.01)

CPC (source: EP US)  
**E02D 5/02** (2013.01 - EP US); **E02D 5/04** (2013.01 - EP US); **E02D 17/04** (2013.01 - EP US)

Citation (search report)  
• [A] JP S5854125 A 19830331 - YAMADA KUNIMITSU  
• [A] EP 0754805 A1 19970122 - DYCKERHOFF AG [DE]  
• See references of WO 2011102595A2

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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