

Title (en)
Improvements in the construction of flat structural members without girders

Title (de)
Verbesserung zum Bau von Decken ohne Balken

Title (fr)
Améliorations dans la construction de dalles sans poutres

Publication
EP 0857836 A3 19991020 (EN)

Application
EP 98500035 A 19980206

Priority
ES 9700248 A 19970206

Abstract (en)
[origin: EP0857836A2] The structural members obtained in accordance with the improvements of the invention include bidirectional hollow lightening blocks (3), forming orthogonal ribs (4) and other shapes, this lightening being completed by a lower reinforcement (5) and another, upper reinforcement (6) based on unidirectional or bidirectional mesh in both cases, which, when duly concreted, form lower and upper slabs respectively, and separation reinforcements (7) between them which define a reinforcement of the ribs which are formed in the positioning of the hollow lightening blocks (3). The structural member without girders obtained offers the same resistance to positive and negative moments, and the meshes which constitute the lower (5) and upper (6) reinforcements are simple meshes of conventional industrial fabrication. <IMAGE> <IMAGE>

IPC 1-7
E04B 5/43; **E04B 5/14**

IPC 8 full level
E04B 5/14 (2006.01); **E04B 5/43** (2006.01)

CPC (source: EP)
E04B 5/14 (2013.01); **E04B 5/43** (2013.01)

Citation (search report)
• [X] DE 1222643 B 19660811 - LEOPOLD MUELLER
• [X] DE 2652096 A1 19780518 - SIMONS FRANZ DR ING

Cited by
CN105401676A; FR2956136A1; CN105421636A; EP4123099A1; CN105421633A; IT202100017795A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0857836 A2 19980812; **EP 0857836 A3 19991020**; ES 2138521 A1 20000101; ES 2138521 B1 20000816; ES 2166260 A1 20020401; ES 2166260 B1 20040816; ES 2166268 A1 20020401; ES 2166268 B1 20040816

DOCDB simple family (application)
EP 98500035 A 19980206; ES 9700248 A 19970206; ES 9900994 A 19990512; ES 9901538 A 19990709