

Title (en)
Industrial furnace.

Title (de)
Industrieöfen.

Title (fr)
Perfectionnements aux fours de cuisson.

Publication
EP 0110752 A1 19840613 (FR)

Application
EP 83402130 A 19831102

Priority
FR 8219402 A 19821119

Abstract (en)
[origin: US4512738A] This invention relates to high-temperature kilns such as those used for baking ceramic products. It relates more particularly to the design and construction of the roof of such kilns. According to this invention, the roof (1) is flat and is composed of bricks (4) placed side-by-side which are permanently pressed together by resilient means (16) resting against a rigid external structure (12). The roof bricks (4) are provided with narrow notches (5-9). The combined effect of these notches with the lateral thrust from the springs (16) gives rise within the roof (1) to an arcuate orientation of prestressing forces, so that the flat roof (1) offers a mechanical resistance which matches the resistance of an arched vault, without having the drawbacks of a conventional arched structure, in which the inner volume of the arch is practically useless and causes an uneven heat distribution. This invention thus achieves a flat roof structure which does away with the need for suspension means, and is much more gas-tight than conventional types of flat roofs. Preferably, the springs (16) used for pressing the roof bricks (4) together are located outside the external steel casing (12), so that they are not affected by heat.

Abstract (fr)
Four de cuisson dont la voûte est plane et réalisée par juxtaposition côte à côte de briques réfractaires (4) et disposition sur les côtés de la voûte de moyens (10) appliquant auxdites briques une poussée latérale élastique de compression, lesdits moyens (ressorts ou l'équivalent) prenant appui sur une structure rigide externe (12); la paroi supérieure ainsi constituée comportant des entailles étroites, longitudinales (5, 9) au moins sur l'une des faces de ladite paroi, la profondeur de ces entailles d'intrados allant en décroissant de la zone centrale de la paroi supérieure vers les parties latérales et la profondeur des entailles d'extrados allant en décroissant à l'inverse.

IPC 1-7
F27D 1/02

IPC 8 full level
F27D 1/02 (2006.01)

CPC (source: EP US)
F27D 1/025 (2013.01 - EP US)

Citation (search report)

- FR 1231236 A 19600927
- GB 2092285 A 19820811 - ISOMAX ING HANDEL
- DE 1558568 A1 19700409 - INST ZA BAKAR

Cited by
EP0339705A3; CN103499213A

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)
EP 0110752 A1 19840613; ES 285899 U 19860301; ES 285899 Y 19861016; FR 2536519 A1 19840525; FR 2536519 B1 19850322; PT 77612 A 19831201; PT 77612 B 19860312; US 4512738 A 19850423

DOCDB simple family (application)
EP 83402130 A 19831102; ES 285899 U 19831111; FR 8219402 A 19821119; PT 7761283 A 19831104; US 54918483 A 19831104