

Title (en)

LIQUID-COOLED CANTILEVER SUPPORT SHELF FOR UPPER TIERS OF REFRACTORY BRICK WALLS

Title (de)

FLÜSSIGKEITSGEKÜHLTES FREITRAGENDES STÜTZREGAL FÜR OBERE ETAGEN VON FEUERFESTEN ZIEGELWÄNDEN

Title (fr)

ETAGÈRE DE SUPPORT EN PORTE-À-FAUX REFROIDIE PAR LIQUIDE POUR ÉTAGES SUPÉRIEURS DE MURS EN BRIQUES RÉFRACTAIRES

Publication

EP 4202340 A1 20230628 (EN)

Application

EP 22209837 A 20181014

Priority

- EP 22209837 A 20181014
- EP 18937057 A 20181014
- US 2018055784 W 20181014

Abstract (en)

At least one row of fixed copper coolers are arranged in a furnace in a cantilevered horizontal shelf inside and fastened to an external steel ring support and the steel containment shell. These shelves redirect and take all the weight of refractory brick and floating cooling blocks that are stacked on above. Each fixed copper cooler in the shelves cantilever shoulder-to-shoulder over any refractory brick and floating cooling blocks that may be stacked beneath to relieve that lower portion of the wall from the weight of the upper wall. When relieved of such weight, the risks of sudden catastrophic failure of the lower walls is reduced. These bricks in the lower walls can also be allowed to wear and thin beyond what would be reasonable in a conventional design without any cantilevered shelving

IPC 8 full level

F27D 1/12 (2006.01); **C22B 5/12** (2006.01); **F27B 1/24** (2006.01); **F27D 1/00** (2006.01); **F27D 1/14** (2006.01)

CPC (source: EP)

F27B 1/24 (2013.01); **F27D 1/00** (2013.01); **F27D 1/12** (2013.01); **F27D 1/14** (2013.01)

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[A] US 2018003440 A1 20180104 - MACRAE ALLAN J [US]

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