

Title (en)  
Tempering apparatus for tempering a steel plate.

Title (de)  
Vorrichtung zum Anlassen von Stahlplatten.

Title (fr)  
Appareil de revenu de plaques en acier.

Publication  
**EP 0607907 A1 19940727 (EN)**

Application  
**EP 94100608 A 19940118**

Priority  
JP 849393 A 19930121

Abstract (en)  
A tempering apparatus for tempering a steel plate includes a furnace, an inlet for putting a product which is quenched into the furnace, the inlet is disposed on the furnace, an outlet for taking the product which is tempered out the furnace, the outlet is disposed at an upper portion of the inlet, a fixed die disposed under a roof of the furnace, a pressing member moving in a vertical direction under the fixed die, a plurality of movable dies disposed between the fixed die and the pressing member so as to lie one upon another, the movable dies which sandwich the products each other, a conveying member disposed in the furnace adjacently to the pressing member and which is moved in a vertical direction, a first transmitting member which transmits at least one of the movable die from the conveying member to the pressing member, a second transmitting member which transmits at least one of the movable die laid on a top of the movable dies held by the pressing member to a near portion to the outlet, a first holding member disposed between the pressing member and the fixed die and which holds the plurality of movable dies and a second holding member disposed at an upper portion of the first holding member and which holds at least one of the movable dies. <IMAGE>

IPC 1-7  
**C21D 9/00**

IPC 8 full level  
**C21D 1/18** (2006.01); **C21D 8/02** (2006.01); **C21D 9/00** (2006.01); **C21D 9/02** (2006.01); **C21D 9/46** (2006.01); **C21D 1/26** (2006.01)

CPC (source: EP)  
**C21D 9/005** (2013.01); **C21D 9/0068** (2013.01); **C21D 9/46** (2013.01); **C21D 1/26** (2013.01); **C21D 9/0018** (2013.01); **C21D 9/0025** (2013.01); **C21D 9/02** (2013.01)

Citation (search report)  
• [Y] US 1894590 A 19330117 - INGERSOLL ROY C  
• [Y] EP 0257540 A2 19880302 - BRITISH STEEL CORP [GB]  
• [A] US 5044611 A 19910903 - BENEY MAURICE [FR], et al & JP H036328 A 19910111 - SHIYUTAIN UURUTEE  
• [A] US 3510367 A 19700505 - BERGER JAMES E  
• [A] FR 1598224 A 19700706  
• [A] US 3753798 A 19730821 - KOMATSU N, et al

Cited by  
CN102383135A

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0607907 A1 19940727**; **EP 0607907 B1 19980429**; DE 69409842 D1 19980604; DE 69409842 T2 19981015; JP 3370120 B2 20030127; JP H06220528 A 19940809

DOCDB simple family (application)  
**EP 94100608 A 19940118**; DE 69409842 T 19940118; JP 849393 A 19930121