

Title (en)  
Improvement for ladles to cast metal.

Title (de)  
Verbesserungen an Pfannen zum Giessen von Metall.

Title (fr)  
Perfectionnement aux poches de coulée de métal.

Publication  
**EP 0302040 A2 19890201 (FR)**

Application  
**EP 88870124 A 19880715**

Priority  
BE 8700855 A 19870731

Abstract (en)  
[origin: JPH01104462A] PURPOSE: To efficiently cool a fixed plate of a cooler for a ladle by a jet of a cooling fluid by providing an annular chamber partially enclosing an internal nozzle with a hollow member for supplying this fluid and forming many orifices facing the fixing plate of the cooler in the hollow members. CONSTITUTION: The wearing part 12B of the internal nozzle 12 is enclosed by the annular chamber 3 and envelopes the hollow member 5. The member 5 is communicated with a duct 6 for supplying a cooling fluid and is formed with many orifices 7 over the entire length of the member 5 so as to direct the jet of the cooling fluid to the fixed plate 22 enclosing a hole for casting. Then, the jet of the cooling fluid directed toward the fixed plate 22 powerfully cools the fixed plate.

Abstract (fr)  
Dans une poche de coulée comprenant une busette interne formant un canal de coulée, une chambre de refroidissement annulaire (3) entoure la busette interne sur une partie de sa longueur, la chambre annulaire (3) contenant un élément creux (5) dont le volume intérieur est en communication avec une conduite d'amenée (6) pour un fluide de refroidissement. L'élément creux (5) s'étend dans la chambre annulaire de manière à entourer au moins partiellement la busette interne, la paroi dudit élément creux (5) étant percée de plusieurs orifices (7) répartis sur sa longueur de manière à diriger des jets de fluide de refroidissement sur la plaque fixe (22) du dispositif de fermeture de poche autour du trou de coulée dans cette plaque (22).

IPC 1-7  
**B22D 41/08**

IPC 8 full level  
**B22D 41/005** (2006.01); **B22D 41/08** (2006.01); **B22D 41/60** (2006.01)

CPC (source: EP US)  
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**EP 0302040 A2 19890201**; **EP 0302040 A3 19900307**; **EP 0302040 B1 19920916**; AT E80570 T1 19921015; BE 1000777 A7 19890404; DE 3874648 D1 19921022; JP H01104462 A 19890421; US 4844303 A 19890704

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**EP 88870124 A 19880715**; AT 88870124 T 19880715; BE 8700855 A 19870731; DE 3874648 T 19880715; JP 18706488 A 19880728; US 22641988 A 19880729