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(54) Title: COOLING ASSEMBLY FOR A TURBINE AIRFOIL AND CORRESPONDING AIRFOIL OF A TURBINE ASSEMBLY

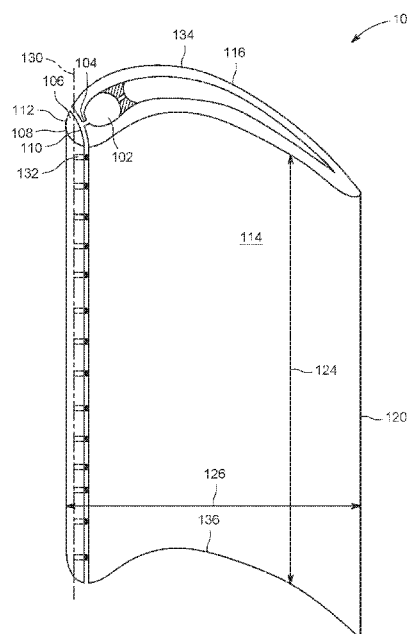


FIG. 1

(57) Abstract: An assembly comprises a cooling chamber (102) disposed inside an airfoil (100) of a turbine assembly. The cooling chamber (102) is configured to direct cooling air inside of the airfoil (100). The assembly includes an impingement hole (104) disposed inside the airfoil (100) and fluidly coupled with the cooling chamber (102). The impingement hole (104) is configured to direct at least some of the cooling air out of the cooling chamber (102). The assembly also includes a double impingement slot cap assembly (106) that is coupled with the airfoil (100). The double impingement slot cap assembly (106) forms a cover over the impingement hole (104) and is configured to direct the cooling air exiting the cooling chamber (102) in the airfoil (100) through the impingement hole (104) along one or more exterior surfaces (114, 116) of the airfoil (100).

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B. FIELDS SEARCHED

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F01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/232769 A1 (LEE CHING-PANG [US] ET AL) 20 October 2005 (2005-10-20) paragraph [0033] - paragraph [0046]; figures 1,2,3	1-20
X	----- US 4 565 490 A (RICE IVAN G [US]) 21 January 1986 (1986-01-21) column 8, line 2 - column 9, line 7; figures 3,4	1-20
X	----- EP 1 087 103 A2 (GEN ELECTRIC [US]) 28 March 2001 (2001-03-28) paragraph [0023] - paragraph [0031]; figures 1,2	1-20
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Further documents are listed in the continuation of Box C.



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

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