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(54) **COOLING CHAMBER FOR UPSTREAM WELD OF DAMPING RESONATOR ON TURBINE COMPONENT**

(71) Applicant: **Reinhard Schilp**, Orlando, FL (US)

(72) Inventor: **Reinhard Schilp**, Orlando, FL (US)

(73) Assignee: **SIEMENS AKTIENGESELLSCHAFT**, München (DE)

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(58) **Field of Classification Search**

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USPC 60/725
See application file for complete search history.

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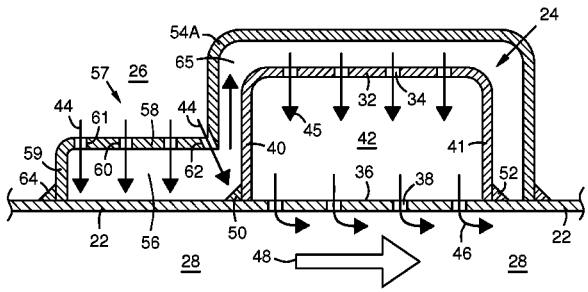
Primary Examiner — William H Rodriguez
Assistant Examiner — Eric Linderman

(57) **ABSTRACT**

A cover (**54**, **54**A-B) enclosing with clearance (**65**) an acoustic damping resonator (**24**) on a working gas path liner (**22**) of a gas turbine component (**28**). The cover includes a coolant inlet chamber (**56**, **56**B) with a top wall (**58**, **58**B) that is closer to the liner than a top wall (**32**) of the resonator, and extends upstream from the resonator relative to the working gas flow (**48**). Compressed air (**26**) surrounds the cover at a higher pressure than the working gas and flows (**44**) into and through the coolant inlet chamber, then through holes (**34**) in the resonator, then exits through holes (**38**) the liner into the working gas. The coolant inlet chamber directs the flow of compressed air over a weld (**50**) of the upstream wall (**40**) of the resonator to cool it. The cover may be formed as a box (**57**) or a sleeve (**69**).

20 Claims, 5 Drawing Sheets