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[Continued on next page]

(54) Title: AERODYNAMIC SEAL FOR REDUCTION OF NOISE GENERATED ON AIRCRAFT CONTROL SURFACES

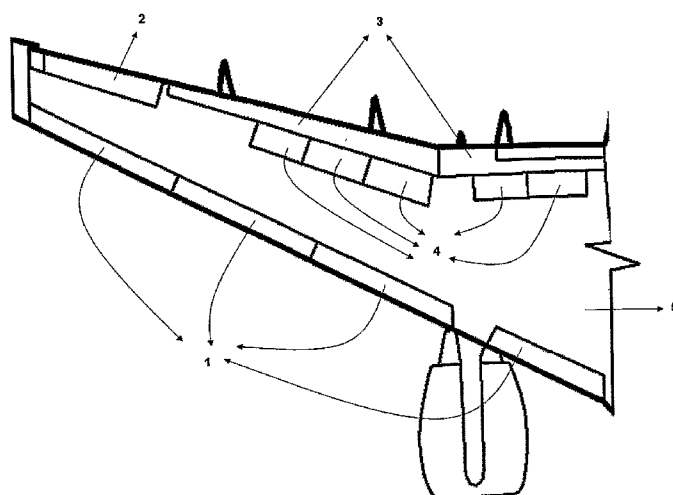


Fig. 1

(57) Abstract: Flap side edge noise mechanisms have been addressed in a large number of studies during the last decades. A specific vortex system emanates from the flap side edge due to the static pressure difference between the upper and lower flap surfaces. Such pressure difference leads to a merging between the two vortex systems that are generated on the upper and lower edges of the flap side contour. The present invention intends to show the application of a perforated blade seal (21) at the lower (11) and/ or upper (8) side edges of the control surface contour, such as a flap (3), with the purpose of acting as a vortex generator, making difficult for the lower vortex system to move upwards and merge with the upper vortex system. The perforated blade seals (21) are preferably arranged on the inboard and outboard edges of high lift flaps (3).



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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,491,260 B2 (BORCHERS et al) 10 December 2002 (10.12.2002) entire document	1-8
A	US 2001/0038058 A1 (GLEINE et al) 08 November 2001 (08.11.2001) entire document	1-8
A	US 2003/0226936 A1 (MAU et al) 11 December 2003 (11.12.2003) entire document	1-8
A	US 5,749,546 A (BLACKNER et al) 12 May 1998 (12.05.1998) entire document	1-8
A	US 3,630,313 A (SMITH) 28 December 1971 (28.12.1971) entire document	1-8
A	US 6,454,219 B1 (MOE) 24 September 2002 (24.09.2002) entire document	1-8
A	US 5,050,822 A (WHITEHOUSE et al) 24 September 1991 (24.09.1991) entire document	1-8
A	US 5,613,649 A (SCHLINKER et al) 25 March 1997 (25.03.1997) entire document	1-8
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