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(54) Title: ALUMINUM AIRFOIL

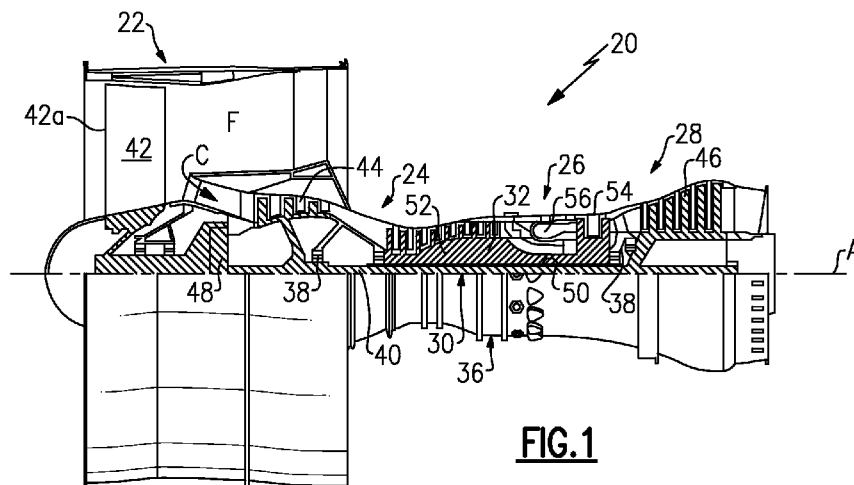


FIG. 1

(57) Abstract: A method of making an aluminum airfoil includes brazing a first airfoil piece and a second airfoil piece together using a braze material that includes an element selected from magnesium and zinc, to form a braze joint between the first airfoil piece and the second airfoil piece. At least one of the first airfoil piece or the second airfoil piece has an aluminum alloy composition that includes greater than 0.8% by weight of zinc.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 13/20969

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B23P 15/04; B23K 20/02 (2013.01)

USPC - 29/889.7

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC (8) - B23P 15/04; B23K 20/02 (2013.01)

USPC - 29/889.7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 228/262.5, 252.51; 29/889.21, 889.71, 889.72, 889.721; 148/437, 535

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase; Google Patents; Google Scholar; Search Terms: aluminum Al zinc Zn airfoils aerofoil braze brazing solder vane blade cavity hole aperture channel hollow pressure compress, (airfoil OR blade OR vane) (magnesium OR zinc OR Mg OR Zn)-braze; (aluminum zinc)-(airfoil OR blade OR vane)-braze

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,242,102 A (NICOLAS) 07 September 1993 (07.09.1993), col 4, ln 52-66; col 5, ln 3-52; col 6, ln 40-68	1-20
Y	US 7,854,252 B2 (SONG, ET AL.) 21 December 2010 (21.12.2010), col 3, ln 42-47; FIG. 5	1-20
Y	US 7,014,426 B2 (SCHULTZ) 21 March 2006 (21.03.2006), col 4, ln 2-8	7-8

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
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