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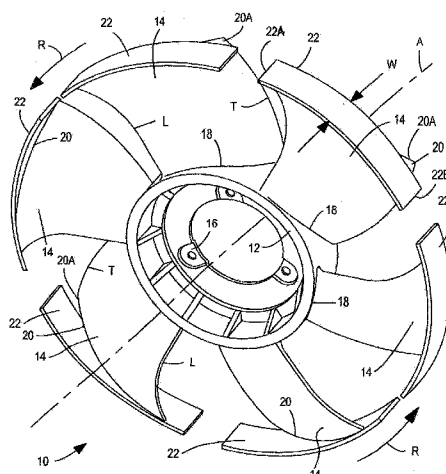


FIG. 1

(57) Abstract: A cooling fan with partial ring members attached to the blade tips. The fan preferably is a one-piece molded fan with a central hub and a plurality of blade members. Partial ring members on the blade tips reduce weight and minimize potential failures caused by knit lines and operations at high rotational speeds.

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A. CLASSIFICATION OF SUBJECT MATTER**F04D 29/38(2006.01)i, F04D 29/32(2006.01)i, F04D 29/54(2006.01)i**

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC : F04D 29/00 - F04D 29/52, F04D 29/54, F04D 29/56 - F04D 29/70

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKIPASS(KIPO internal) & keyword : "fan", "hub", "blade", "ring"

C. 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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Y A	US 5405243 A (NORMAN R. HURLEY et al.) 11 April 1995 See Figures 1 and 2.	3,4 1,2,5-10
A	EP 1873355 A1 (SIEMENS AKTIENGESELLSCHAFT) 02 January 2008 See Figure 1.	1-10
A	JP 2003-531341 A (BORGWARNER INC.) 21 October 2003 See Figure 2.	1-10



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