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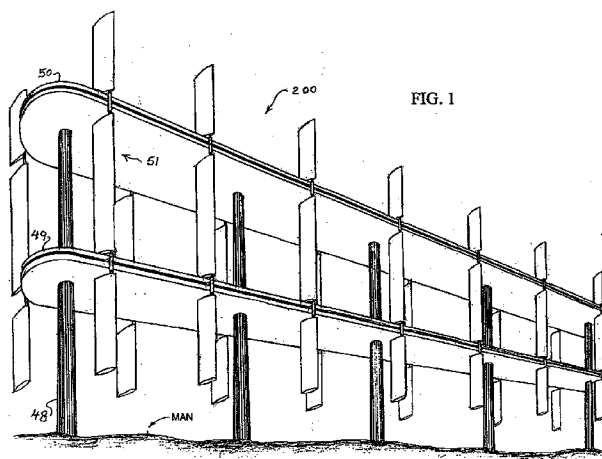
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(54) Title: WIND AND WATER POWER GENERATION DEVICE USING A TIERED MONORAIL SYSTEM



(57) Abstract: A power generation assembly for use in generating electrical power from air or water currents includes a tiered rail system forming elongated loops, a vane assembly having a frame and at least one vane, and car assemblies sidably mounted to each rail, including linkage portions coupled to the frame of the vane assembly and a power-take-off arrangement includes an element that is operatively coupled to the car assembly and a drive wheel coupled to a generator and configured to take power off the moving car assembly by the drive wheels being rotated by the passing power-take-off element or a power-take-off system using a cable and clamps.



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**A. CLASSIFICATION OF SUBJECT MATTER***F03D 5/00(2006.01)i, F03B 17/00(2006.01)i, F03D 9/00(2006.01)i, F03B 13/00(2006.01)i*

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 F03D 5/00, F03D 9/00

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) &amp; keyword : "rail", "vane", "car"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,859,146 A (GAUDENCIO A. LABRADOR) 22 August 1989 See Column 2, Line 19 - Column 3, Line 60; Claim 1; Figures 1-6.	1-29
A	US 6,672,522 B2 (KOO SHIK LEE et al.) 6 January 2004 See Column 1, Line 31 - Column 2, Line 5; Claim 1; Figures 1-4.	1-29
A	US 7,075,191 B2 (FRED E. DAVISON) 11 July 2006 See Column 2, Line 60 - Column 3, Line 25; Claim 1; Figures 1-4.	1-29

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4,859,146 A	22.08.1989	US 4756666 A US 4859146 A US 6327994 B1	12.07.1988 22.08.1989 11.12.2001
US 6,672,522 B2	06.01.2004	US 2003/0160458 A1	28.08.2003
US 7,075,191 B2	11.07.2006	US 2004/0080166 A1	29.04.2004