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[Continued on next page]

(54) **Title**: APPARATUS AND METHOD OF MOUNTING AND SUPPORTING A SOLAR PANEL

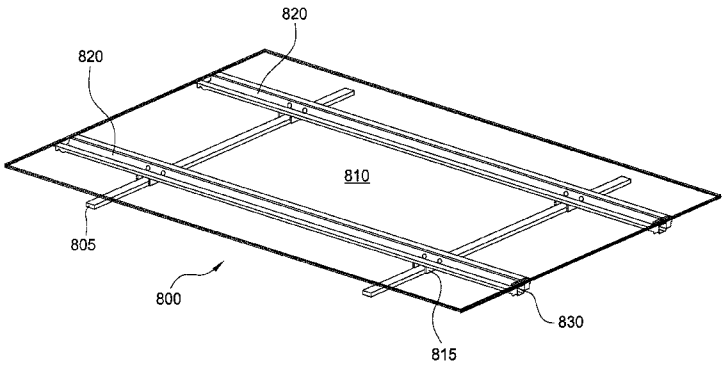


FIG. 8

(57) **Abstract**: The present invention generally relates to a simple and cost effective device and method for mounting and supporting solar panels. A solar panel according to the present invention is supported from the backside via a plurality of elongated support members. The elongated support members may have open V-shaped or W-shaped arrangements and may be adhered to the solar panels through strong, flexible glue or double-sided tape that withstands significant environmental loads, such as wind uploading, yet remain flexible enough to minimize stress concentrations in the solar panels. The support members may be attached to a solar panel by a support member attachment module incorporated into an automated solar panel production line. A plurality of solar panels may be field mounted to a solar panel support structure having one or more piles or the like with at least a lower and upper transverse support rails spanning the plurality of solar panels.

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A. CLASSIFICATION OF SUBJECT MATTER

H01L 31/042(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 8 : H01L

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)

eKOMPASS(KIPO Internal) "solar", "photovoltaic", "support", "panel", "flexible", "moisture", "bond", "clean", "dry", "automation", "rail", "adhesive"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006-0107516 A1 (BRIAN E. JOSEPH et al.) 25 May 2006 See claim 28, paragraph [0037], abstract, figure 1	1-15
A	JP 09-55530 A (SUNSTAR ENG. INC.) 25 February 1997 See claim 1, paragraphs [0011]-[0012], abstract, figure 3	1-15
A	US 2005-0161074 A1 (PAUL GARVISON et al.) 28 July 2005 See claims 1 and 11, paragraphs [0023]-[0025], abstract, figures 1-3E	1-15
A	JP 2002-294955 A (ARASHI BANKINTEN KK. et al.) 9 October 2002 See claim 1, abstract, figure 6	1-15

☐ 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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"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
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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JP 2002-294955 A	09.10.2002	None	