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[Continued on next page]

(54) Title: CLEANING SYSTEM FOR NONPOROUS SURFACES

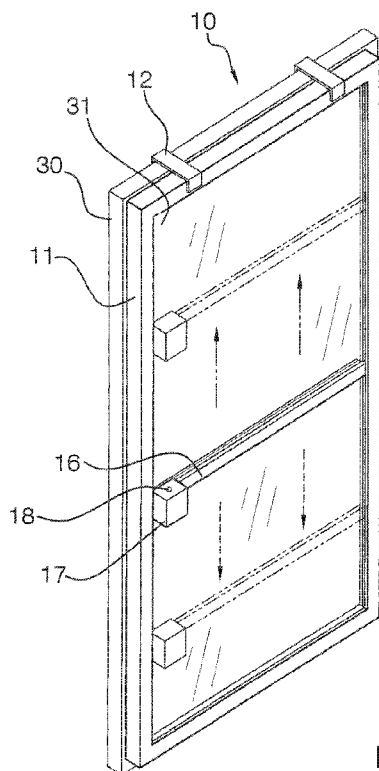


FIG. 5

(57) Abstract: A glass cleaning squeegee system has a frame that outlines glass surface or windowpane to be cleaned; the frame with at least one vertical guide track; a cross bar having on each end a gear that is situated in the guide track, the cross bar being oriented horizontally; a squeegee attached to the horizontal cross bar on a side of the cross bar facing the glass surface; a motor driving at least one gear to move the squeegee on the cross bar vertically; a powering means connected to the motor; and a means of attaching the frame at least temporarily to the glass surface or windowpane.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/040324**A. CLASSIFICATION OF SUBJECT MATTER****A47L 1/02(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)

A47L 1/02; A47L 4/04; E06B 7/00

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: glass, clean, squeegee, windowpane, vertical, guide, horizontal,gear, motor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2007-0044259 A1 (CLARENCE WHITE et al.) 01 March 2007 See paragraphs [0036]-[0055] claims 1,4,5,7	1,2,5,10,20
A	fig. 2,3,10-12	3,4,6-9,11-19,21 ,22
Y	JP 2006-021012 A (HIROKO SAITO) 26 January 2006 See paragraph [0006],[0007]	1,2,5,10,20
A	fig. 1,3,4	3,4,6-9,11-19,21 ,22
A	JP 07-133691 A (MITSUI CONSTR CO LTD) 23 May 1995 See paragraphs [0005],[0012],[0022] claim 1 fig. 2,3	1-22

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

* Special categories of cited documents:

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"E" earlier application or patent but published on or after the international filing date

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"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

"&" document member of the same patent family

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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 2007-0044259 A1	01.03.2007	US 7503091 B2 WO 2007-024397 A2 WO 2007-024397 A3 WO 2007-024397 A3	17.03.2009 01.03.2007 01.03.2007 23.04.2009
JP 2006-021012 A	26.01.2006	None	
JP 07-133691 A	23.05.1995	None	