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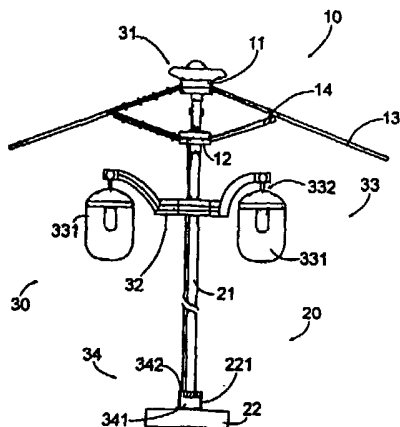
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(54) Title: SOLAR LIGHTING SYSTEM FOR OUTDOORS UMBRELLA



(57) Abstract: A solar lighting system (30), which is incorporated with an outdoors umbrella (1), includes a solar energy collector (31) mounted on top of the outdoors umbrella (1), a chain lighting arrangement (34), an attachable lighting system (35), and a light support (32), which is adjustably mounted along a supporting shaft (21) of the outdoors umbrella (1) at a position within the shadowing area (101) of the awning frame (10), including a plurality of supporting arms (321) radially extended from the supporting shaft (21), and a plurality of illuminators (331) connecting to the supporting arms (321) respectively in a movably suspended manner such that by selectively adjusting a position of the light support (32), along the supporting shaft (21), the illuminators (331) are suspendedly self-repositioned for maximizing a light coverage area within the shadowing area (101).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/15129

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A45B 3/02, 23/00
 US CL : 135/16, 910; 362/102

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)
 U.S. : 135/16, 98, 910; 362/102

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST classification and citation search and (135/910 or 362/102) and solar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,692,135 B2 (LI) 17 February 2004 (17.02.2004), lighting system for outdoor umbrella.	1-48
A	US 6,298,866 B1 (MOLNAR) 09 October 2001 (09.10.2001), lights 52, 54 suspended on arms 56, 58 about shaft 16 of an outdoor umbrella.	1-48
A	US 5,331,524 A (TSENG) 19 July 1994 (19.07.1994), umbrella with lighting device.	1-48
A	WO 93/00840 A1 (SCHMITT), 21 January 1993 (21.01.1993), umbrella with solar device.	1-48

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	"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
"E"	earlier application or patent published on or after the international filing date	"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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"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	"&" document member of the same patent family

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