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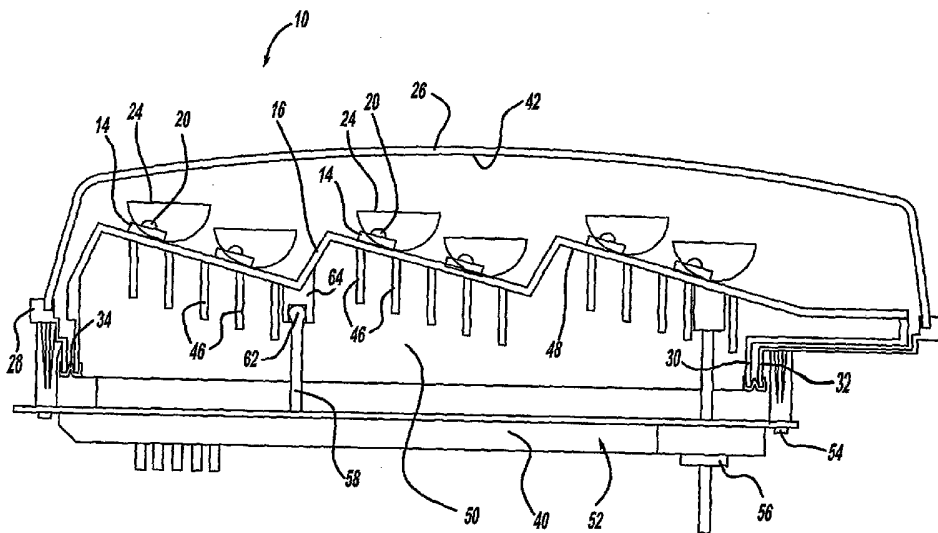
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(54) Title: APPARATUS AND METHOD FOR MOUNTING AND ADJUSTING LED HEADLAMPS



(57) Abstract: An LED headlamp assembly (10) for a vehicle. The headlamp assembly (10) includes a plurality of LED units (14) mounted to a common carrier (16), where the LED units (14) include one or more LEDs and generate white light. The headlamp assembly (10) further includes a headlamp housing (28) that is mounted to the vehicle by a mounting frame (52). The carrier (16) is sealed to the housing (28) by a flexible bellows (34). An outer lens (26) is mounted to the housing (28) so that the LED units (14) are positioned within a sealed compartment (42). A backside of the carrier (16) outside of the sealed compartment (42) includes fins (46) or other heat sinking devices to remove heat generated by the LED units (14). The frame (52) allows convective air to flow around the heat sink (46) to remove heat from the LED units (14). A series of actuators (56) and/or pivots (58) are mounted to the frame (52) and to the carrier (16) so that the carrier (16) can be moved on at least one axis to adjust the direction of the LED headlamp assembly (10).

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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER

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 US CL : 362/545, 547, 508, 546

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 362/545, 547, 508, 546, 516, 520, 523, 526, 528, 548, 549

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,136,483 A (SCHONIGER et al) 04 August 1992 (04.08.1992). see entire document.	1-24
A, E	US 2004/0202007 A1 (YAGI et al) 10 October 2004 (10.10.2004).see entire document.	1-24

Further documents are listed in the continuation of Box C.

See patent family annex.

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