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(54) **METAL HALIDE LAMP, LIGHTING DEVICE FOR METAL HALIDE LAMP AND HEADLIGHT**

(57) There are provided a mercury-free metal halide lamp which is improved in light flux rising immediately after starting, more practical and suitable for a headlight, and a metal halide lamp lighting device and a headlight using this. The metal halide lamp according to the present invention comprises: a translucent air-tight container having an inner volume which is not greater than 0.1 cc, including an enclosure portion forming an inner space having a flat surface on a bottom surface, and having a ratio D/L satisfying the following expression: $0.25 \leq D/L \leq 0.43$ where D is a distance between the bottom surface

and a top surface of the inner space at a central portion in a tube-axis direction, and L is a length of the enclosure portion; a pair of electrodes sealed facing each other with an inter-electrode distance which is not greater than 5 mm; and a discharging medium containing a plurality of metal halogen compounds selected from a group of Sc, Na, In, Zn and a rare-earth metal and a rare gas but intrinsically not containing mercury (Hg), wherein a lamp power per unit inner surface area of the air-tight container is not smaller than 60 (W/cm²).

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FIG. 2

