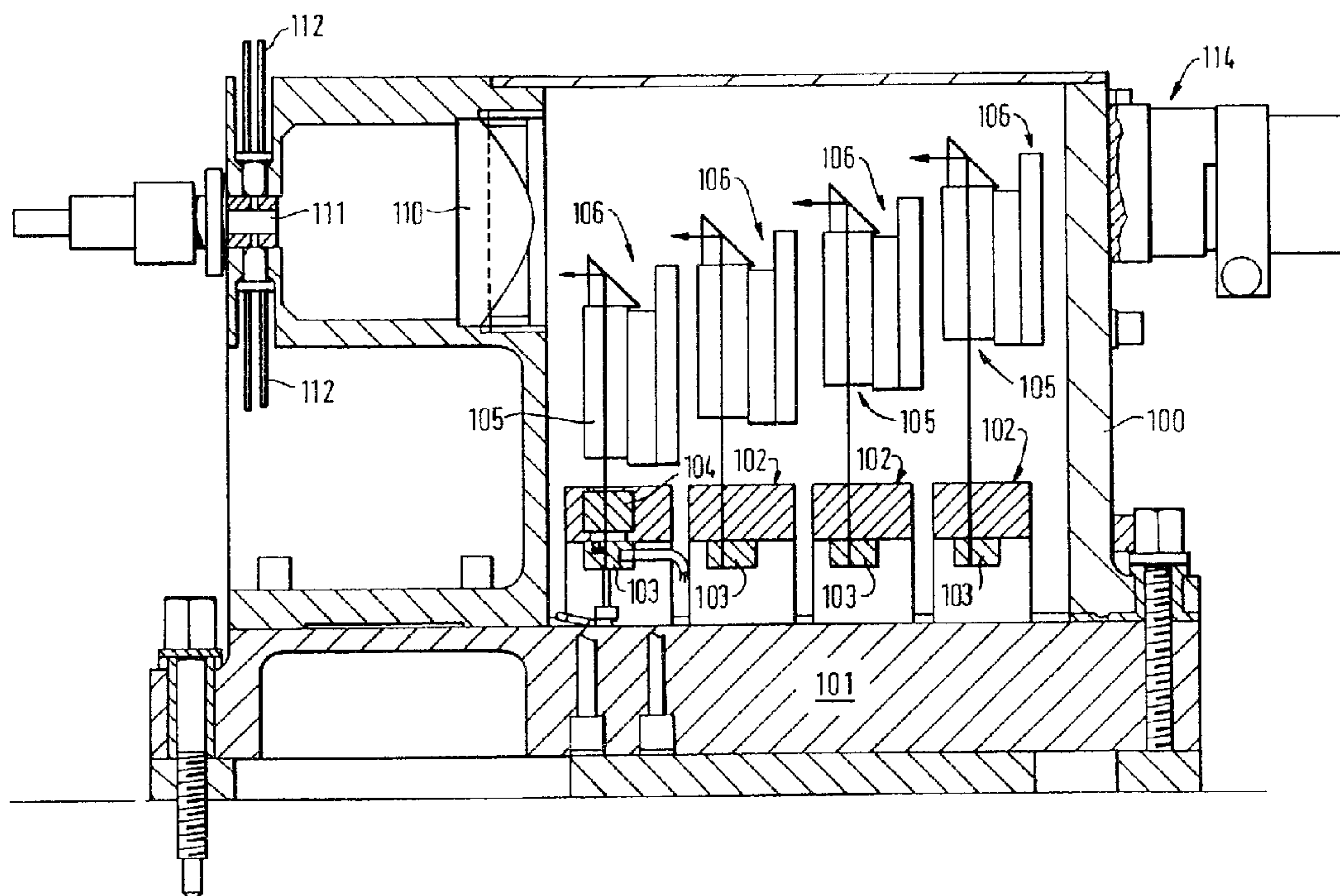




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(54) Title: HIGH POWER LIGHT SOURCE



(57) Abrégé/Abstract:

An optical system for producing a high power light source comprises a number of laser diodes, or similar sources, which emit light from an emission stripe (8) having a long dimension a (x-axis) and a short dimension b (y-axis) and which have a higher numerical aperture in the y-axis than in the x-axis. The laser beams (9) are collimated by a lens (10) and focused onto an optical fibre by a further lens (20). Prior to the focusing, the collimating beams (11) are anamorphically expanded/reduced by beam shaping means (12) so that the width of each beam (11) in the x-axis is increased in relation to the width in the y-axis. The images (21) produced on the fibre end are thus anamorphically magnified so that the anamorphic ratio between the magnification of the stripe (8) in the y-axis and in the x-axis is greater than one. By the brightness theorem, this anamorphic magnification results in a correspondingly relative decrease in the y-axis numerical aperture to enable a corresponding increase in the number of beams (11), which can fit into the solid angle of the target.



