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(54) **WAVELENGTH STABILIZED DIODE-LASER ARRAY**

(52) **U.S. Cl.** 372/4; 372/5

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(57) **ABSTRACT**

A fiber laser including doped-core fiber having inner and outer cladding is optically pumped by plurality of diode-lasers. Light emitted by the diode-lasers is coupled into a single multimode optical fiber. Light from the multimode optical fiber is directed to a wavelength selective reflecting device that is partially reflective in a narrow reflection band about a peak reflection wavelength. A portion of the light having the peak reflection wavelength is reflected from the wavelength selective reflecting device back along the multimode optical fiber and back into the plurality of diode-lasers. This locks the emitting wavelength of the light emitted from each of the diode-lasers to the peak reflection wavelength. Light at the emitting wavelength that is not reflected from the wavelength selective reflective device is coupled into the inner cladding of the doped-core fiber for optically pumping the fiber laser.

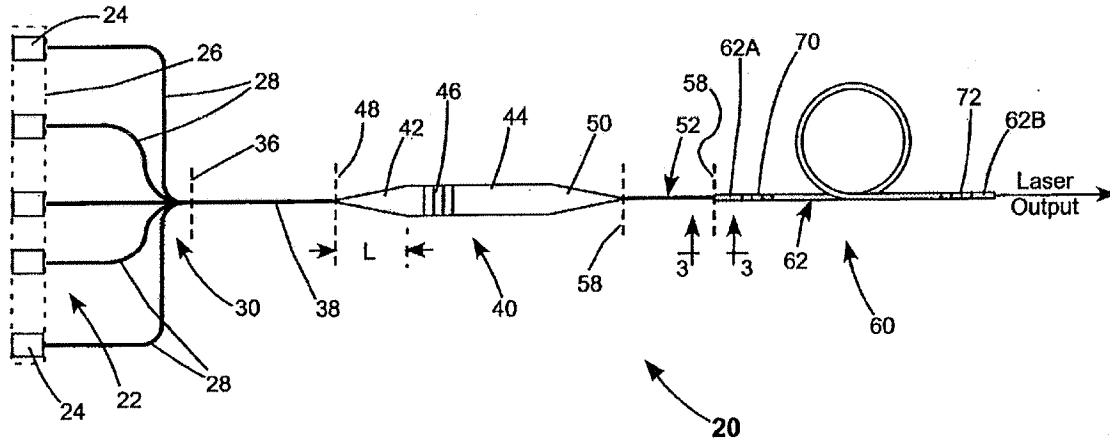
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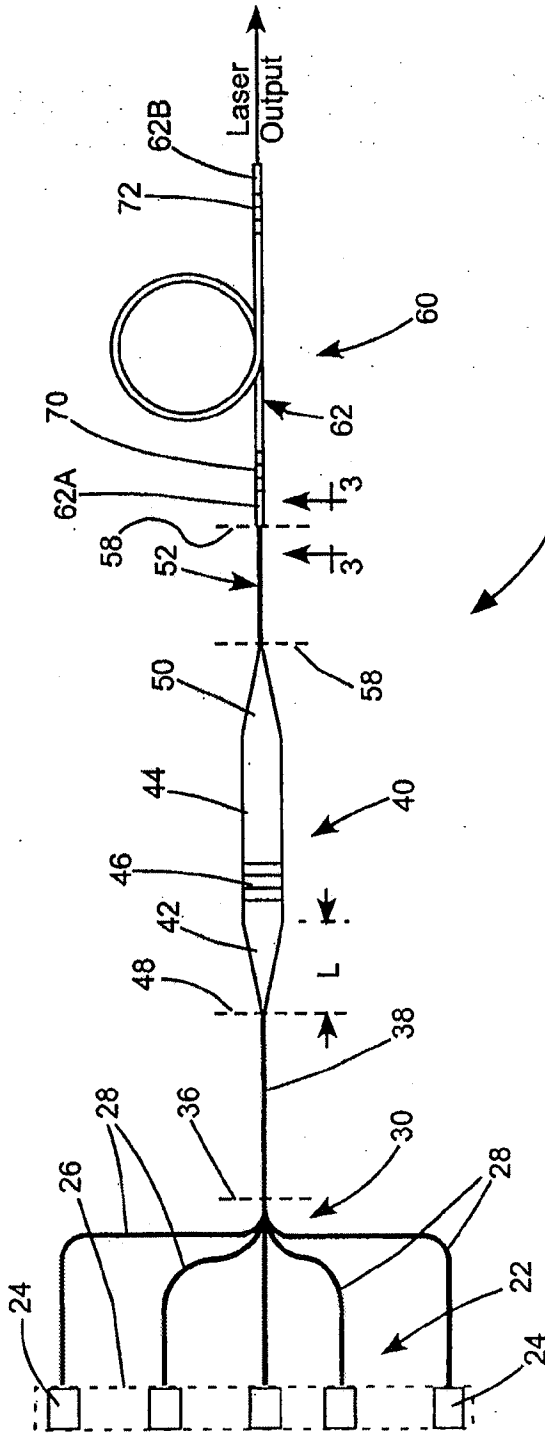


FIG. 1

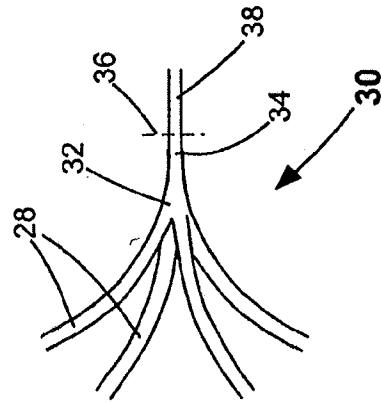


FIG. 2

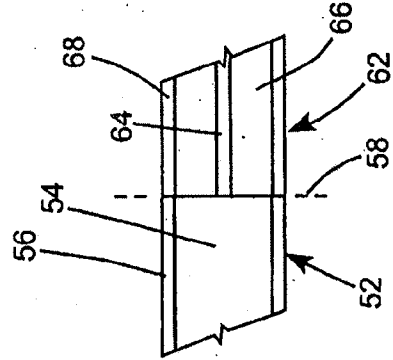


FIG. 3

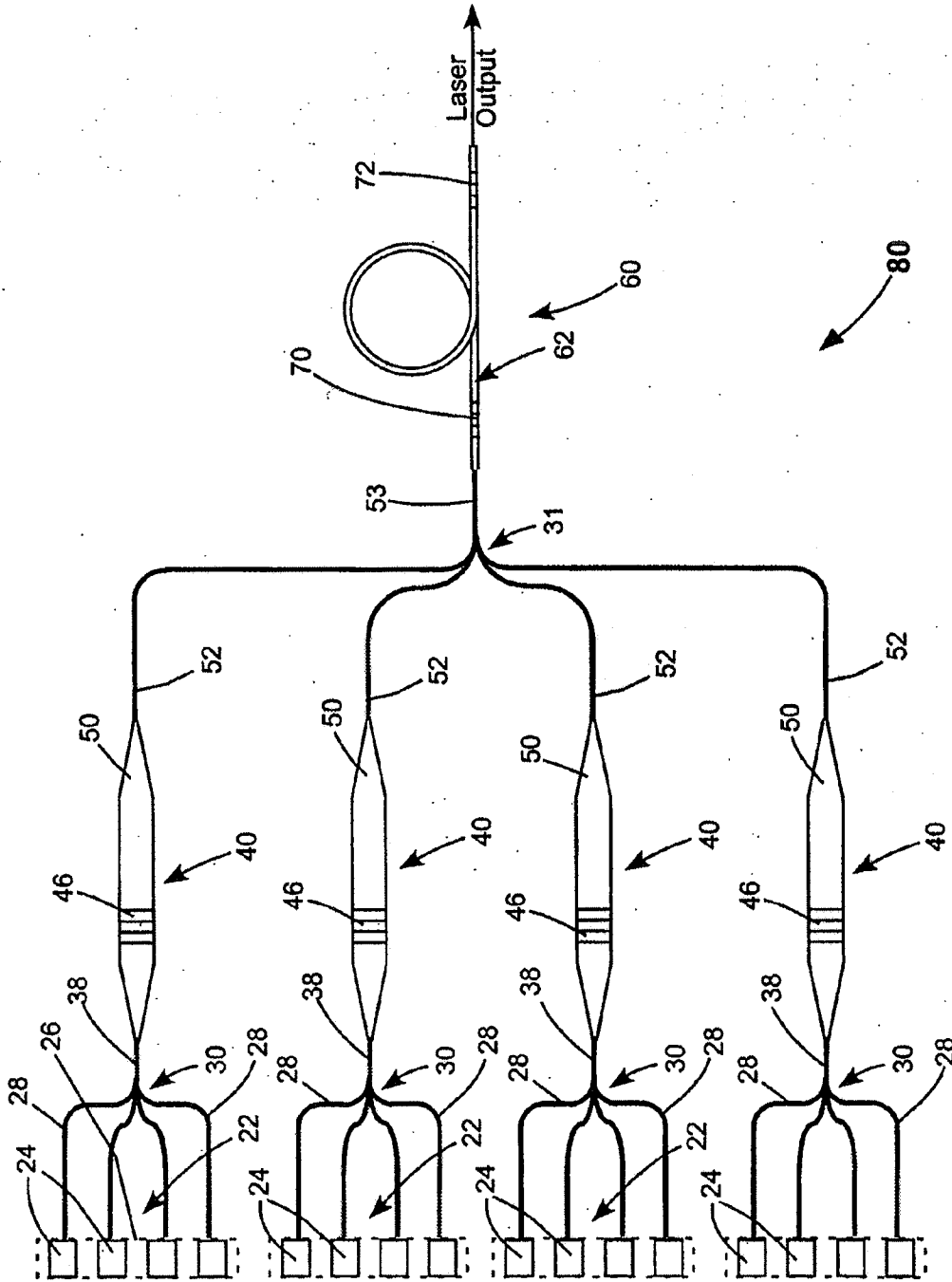


FIG. 4

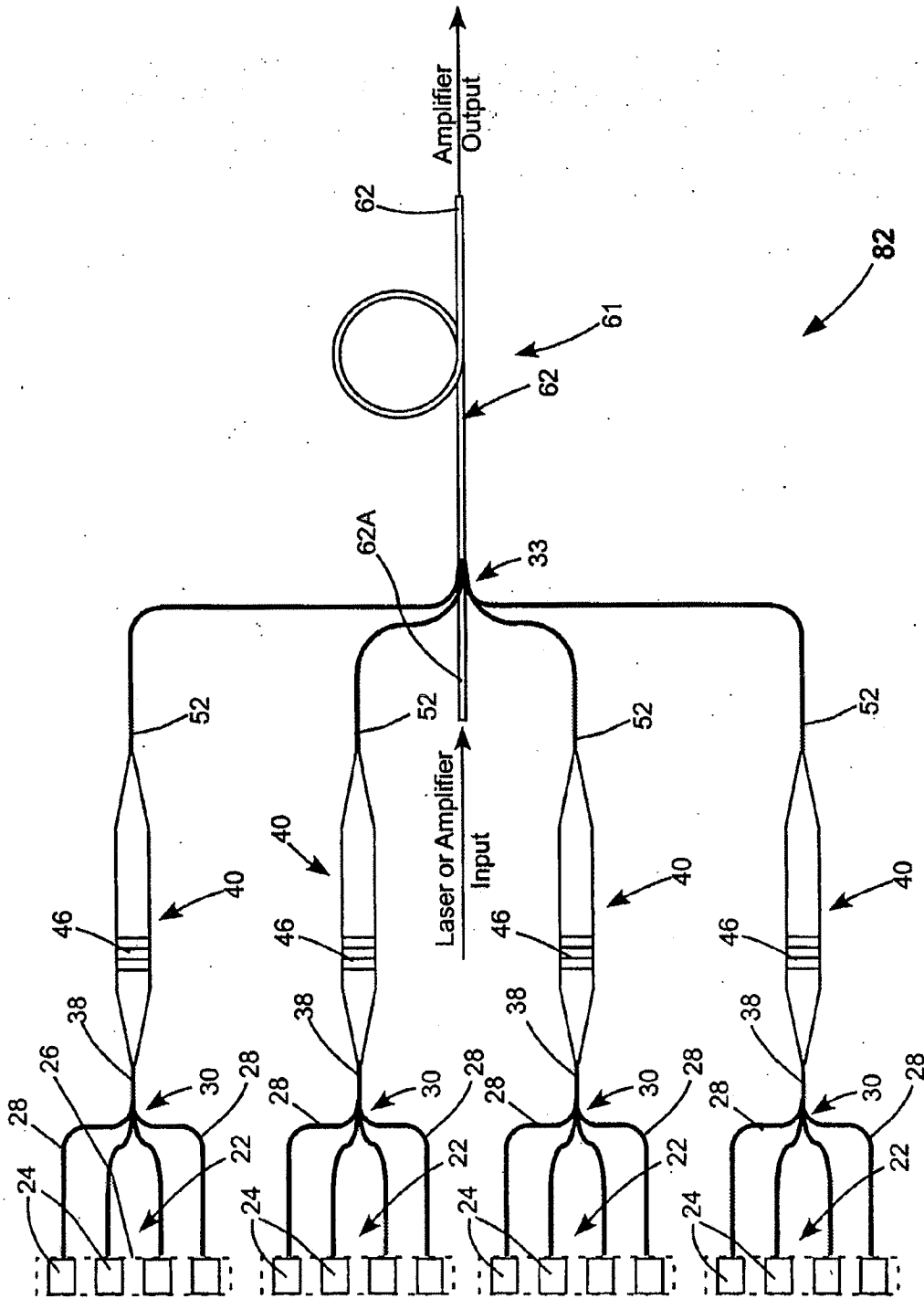


FIG. 5

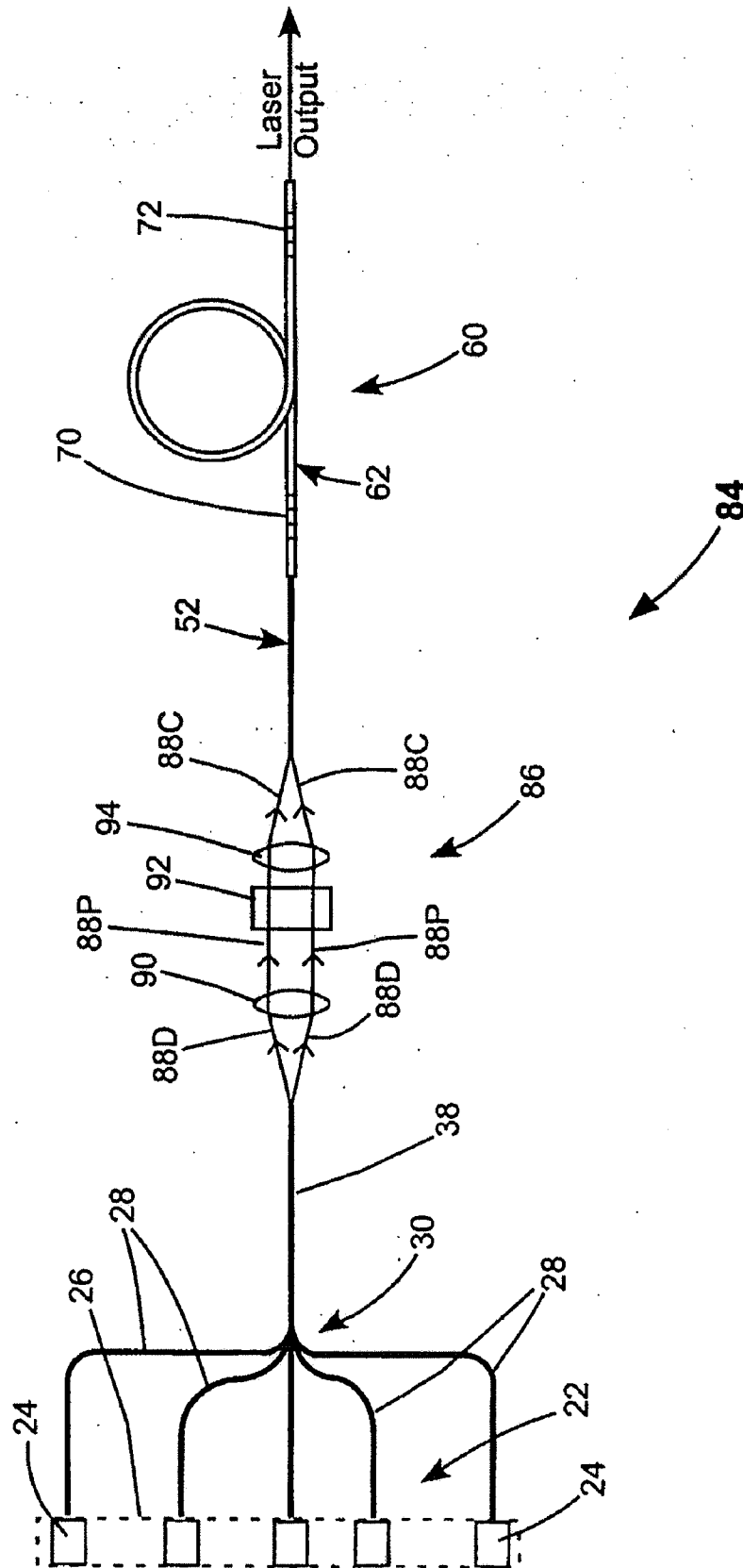


FIG. 6

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