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(54) Title: DEVICE AND METHOD FOR DILATION OF A TUBULAR ANATOMICAL STRUCTURE

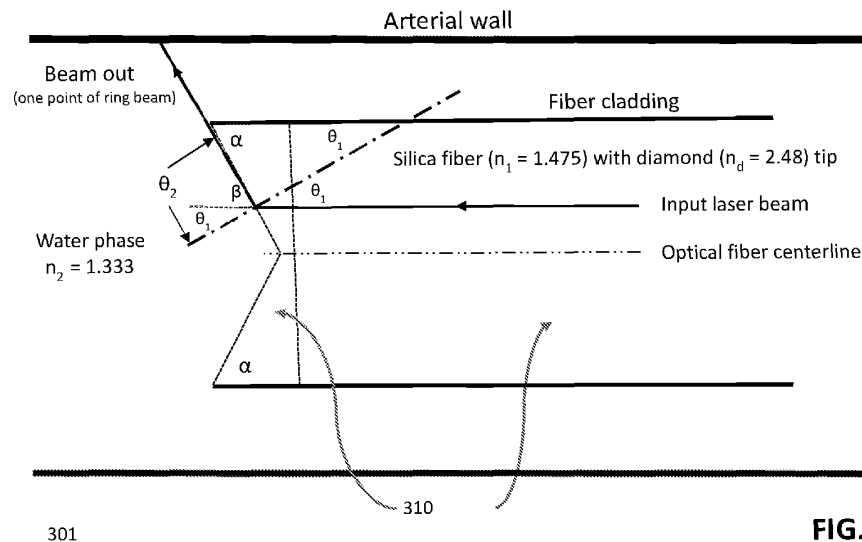


FIG. 3

(57) Abstract: Described is a method and device for dilating a tubular anatomical structure. The device and method can be useful for extracting a blood clot in an artery of a mammal by concentrically irradiating an inner wall of the occluded artery using an ultraviolet (UV) laser beam delivered by an optical fiber having an external or inverted conical tip. Dilation results from photophysical production and release of nitric oxide from the cells lining the arterial wall when UV laser light is projected as a ring beam onto the inner arterial wall. This "minimal contact persistent dilation system" prepares the artery for safer mechanical extraction by thrombectomy, owing to decrease in friction and dissolution of chemical bonding.

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