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(54) **Title:** FIBER BRAGG GRATING (FBG) SENSOR

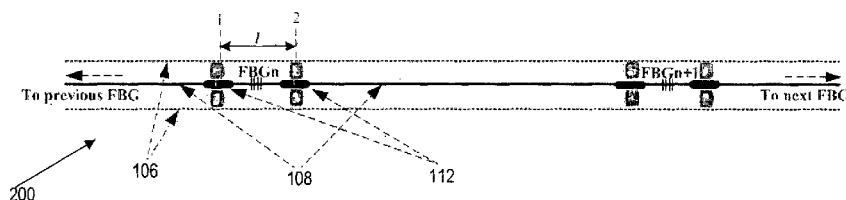


Figure 2

(57) **Abstract:** A fiber Bragg grating (FBG) sensor structure, a method of fabricating a FBG sensor structure, and a method of employing a FBG sensor structure comprising an optical fiber portion having at least one FBG formed therein. The FBG sensor structure comprises an optical fiber portion having at least one FBG formed therein; and a sleeve structure capable of transferring vibrations and/or strain along a length thereof; wherein the optical fiber portion is coupled to the sleeve structure such that the central wavelength of the FBG, is variable under the transferred vibrations and/or strain.

