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(54) **OPTICAL FIBER SENSING METHOD**

(57) An optical fiber sensing method including steps of:
(S1) joining heat shrinkable tubes (21) to two ends of a sensing segment (111,112) of an optical fiber(11);
(S2) coupling a fixing element (31,32) on the heat shrinkable tube (21) below the sensing segment(111,112) ;
(S3) detachably connecting at least one floating element (51,52) to the fixing element (31,32);
(S4) placing the floating element (51,52) into a fluid (W); and (S5) providing an input signal to the sensing segment (111,112) and generating an output signal after the input signal is processed by the sensing segment (111,112), wherein the tensile force applied to the sensing segment (111,112) would change with variation of the buoyant force upon the floating element (51,52), resulting in change of the output signal.
The optical fiber sensing method has numerous advantages, including rapid on-site construction, recyclability of components and changeability of design parameters.

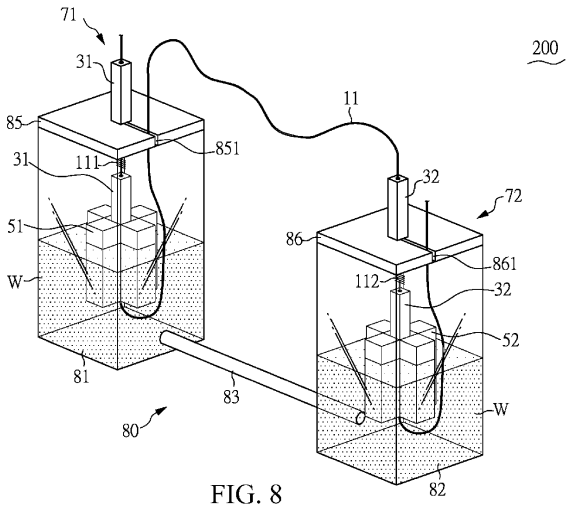

FIG. 8

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