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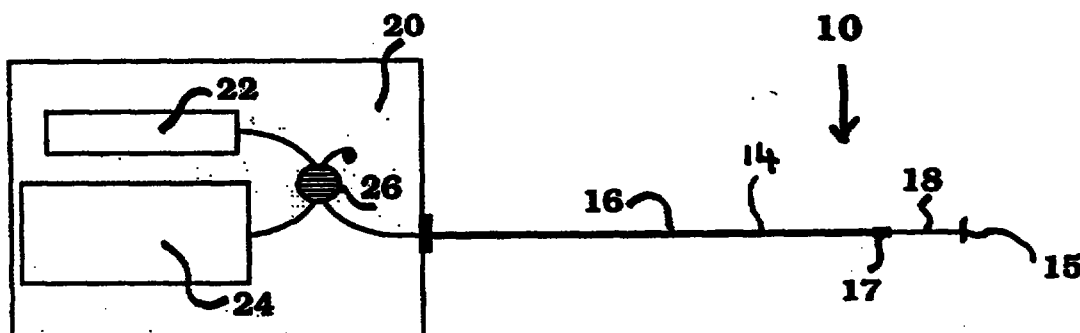
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(54) Title: OPTICAL SENSORS AND METHOD FOR PRODUCING FIBRE OPTIC MODALMETRIC SENSORS



(57) Abstract

An optical sensor and a method of producing the optical sensor is disclosed in which a singlemode fibre (14) is fusion spliced to a multimode fibre (18). The multimode fibre is cleaved or polished at a desired location from the splice (17) to localise the sensor, the end (15) of the multimode fibre can be mirrored to reflect radiation back through the multimode fibre so that the radiation re-enters the singlemode fibre for detection by a detector (24). Alternatively, a light source (22) can be coupled to the singlemode fibre and a further singlemode fibre connected to the multimode fibre at the desired location by fusion splicing so that a detector (24) can be connected to the further singlemode fibre for detecting radiation which is passed through the multimode fibre and which has had its property changed in the multimode fibre.

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