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(54) **Title:** CATHETER FOR PLAQUE STABILISATION

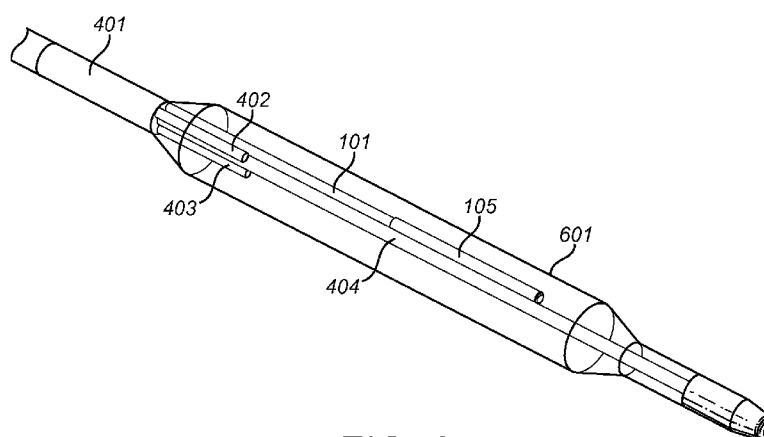


FIG. 6

(57) **Abstract:** Disclosed herein is a catheter for plaque stabilisation by cryotherapy, the catheter comprising: a first tube with a first end for receiving a flow of a coolant and a second end for supplying the flow of the coolant to a cooling element; a second tube, with a first end and a second end, wherein the second end of the second tube is configured to receive a flow of the coolant from the cooling element such that the second tube provides a flow path of the coolant from the second end of the second tube to the first end of the second tube; an inflatable flexible heat transfer element on the outer surface of the catheter; and a conduit for supplying an inflation fluid for inflating the flexible heat transfer element, wherein, when the flexible heat transfer element is inflated by the inflation fluid, the cooling element is configured to be within the balloon and in thermal conductivity with the inflation fluid; wherein the cooling element comprises an elongate tubular wall defining an elongate cooling chamber therein, the cooling chamber has a first end that is in fluid communication with the second end of the second tube and the cooling chamber has a second end that is closed.

