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[54] **KINK-RESISTANT STEERABLE CATHETER ASSEMBLY**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 534,345, Sep. 27, 1995, which is a continuation-in-part of Ser. No. 495,356, Jun. 27, 1995, abandoned.

[51] **Int. Cl.**[6] **A61M 37/00**

[52] **U.S. Cl.** **604/95**; 604/280

[58] **Field of Search** 604/95, 22, 101–103, 604/264, 280; 606/33, 41

[56] **References Cited**

U.S. PATENT DOCUMENTS

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[57] **ABSTRACT**

A kink-resistant steerable catheter assembly suitable for microwave ablation includes a handle, a catheter and a steering control. The catheter has (a) a flexible, torque-transmitting and axially incompressible proximal or body portion terminating in a proximal end attached to the handle, and (b) a flexible and axially compressible distal or tip portion terminating in a distal end. A coaxial cable is disposed in and extends through a large aperture in the catheter proximal portion, and a coaxial cable extension is generally centrally disposed in, substantially fills, and snugly extends through a large lumen in the catheter distal portion to reduce kinking. The control is disposed in and actuatable from the handle, for placing tension on one of a pair of steering wires while relaxing tension on the other of the pair of steering wires, thereby to bend the distal end of the coaxial cable extension toward the tensed one of the steering wires.

22 Claims, 6 Drawing Sheets