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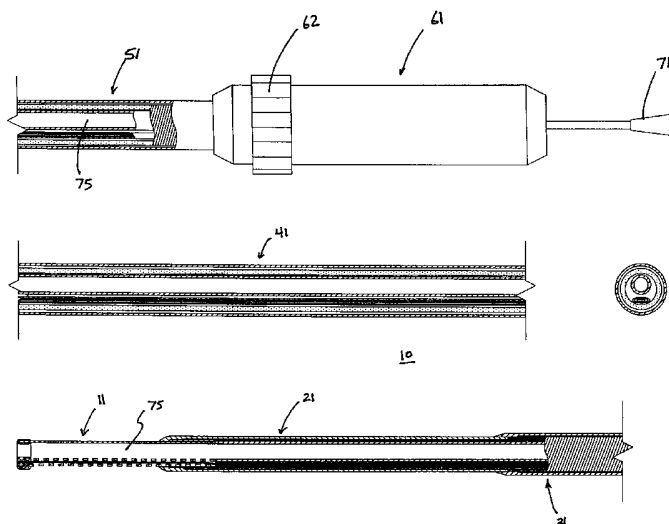
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(54) Title: DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION



(57) Abstract: A catheter (10) comprising an elongate tubular member having a proximal end and a distal end, and a deflectable tip (11) at the distal end of the elongate tubular member. The deflectable tip (11) comprises a first helical coil (14) having a first diameter and a second helical coil (15) having a second diameter, the first diameter being larger than the second diameter. The first and second helical coils (14, 15) are arranged in a manner of a double helix. When viewed in cross-section, the first helical coil (14) and the second helical coil (15) are aligned at a first point on a circumference of each coil and misaligned at a second point on the circumference of each coil, where the second point is approximately 180 degrees from the first point. In certain embodiments the catheter further includes a dilatation balloon. Methods of use for crossing a chronic total occlusion are also described.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61M 31/00

US CL : 604/95.01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,279,561 A (ROUCHER et al.) 18 January 1994 (18.01.1994), See figures 1-3.	1-71
A	US 4,998,923 A (SAMSON et al.) 12 March 1991 (12.03.1991), See figures 1 and 2.	1-71
A	US 5,060,660 A (GAMBALE et al.) 29 October 1991(29.10.1991), See figures 2 and 3.	1-71
A	US 5,131,407 A (ISCHINGER et al.) 21 July 1992 (21.07.1992), See figure 1A.	1-71
A	US 5,269,757 A (FAGAN et al.) 14 December 1993 (14.12.1993), See figure 1.	1-71

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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