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(12) **United States Patent**  
**Chen**

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(45) **Date of Patent:** **Mar. 1, 2005**

(54) **VERSATILE INTERVENTIONAL CORONARY GUIDING CATHETER**

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\* cited by examiner

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) Appl. No.: **10/434,545**

(57) **ABSTRACT**

(22) Filed: **May 9, 2003**

A versatile coronary guiding catheter device and methods of use are provided. The device includes a guiding catheter, an anchor shaft, and a sleeve. In one embodiment, the anchor shaft can be moved relative to the catheter body to form a loop defined by the portions of the anchor shaft and catheter body that are between the distal end of the sleeve and a hinge point. The loop engages an interior surface of the aorta in manner effective to facilitate insertion of the distal end of the catheter body into a coronary ostium, to provide backup support for maintaining a position of the distal end of the catheter body within a coronary ostium, or both. The sleeve may also be moveable to increase the control of the loop size and position, to facilitate greater control of the placement of the catheter tip.

(65) **Prior Publication Data**

US 2004/0225297 A1 Nov. 11, 2004

(51) **Int. Cl.** ..... **A61M 25/01**

(52) **U.S. Cl.** ..... **604/528; 604/534; 604/508; 604/510**

(58) **Field of Search** ..... 606/108; 600/435; 604/523, 528, 532-535, 508, 510, 103.04, 103.05, 164.08, 171

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**23 Claims, 11 Drawing Sheets**

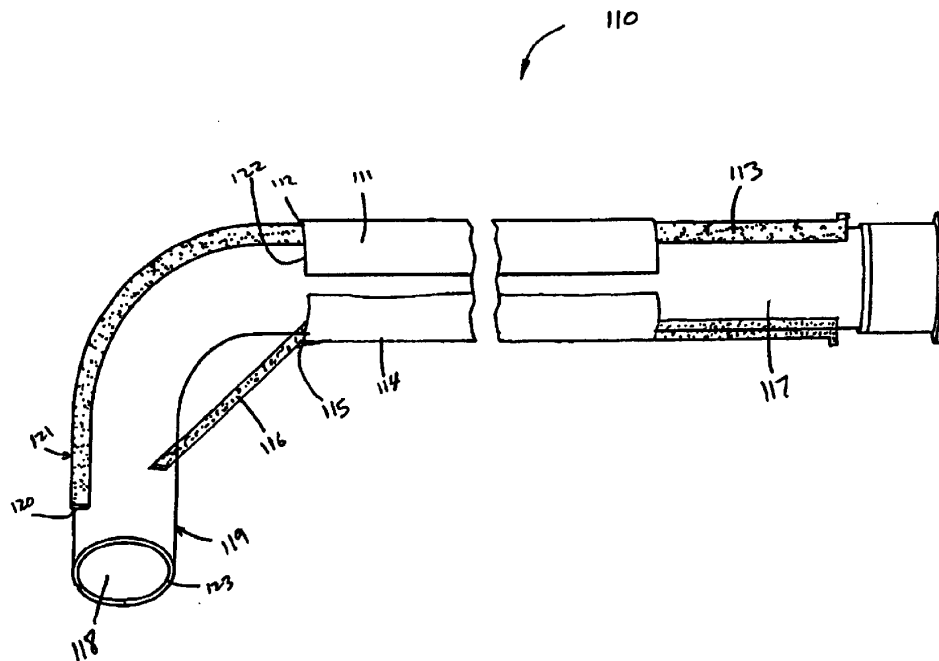


FIG. 1

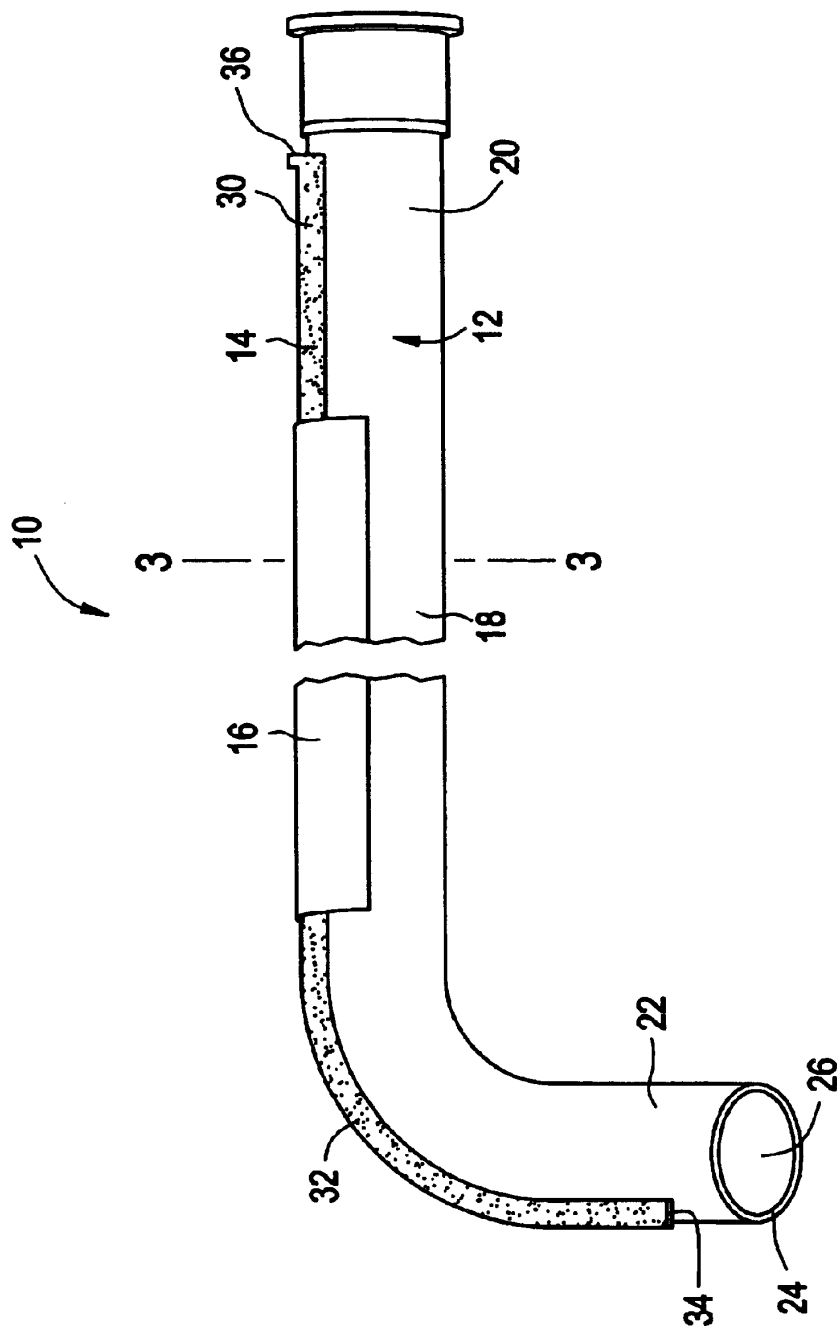


FIG. 2

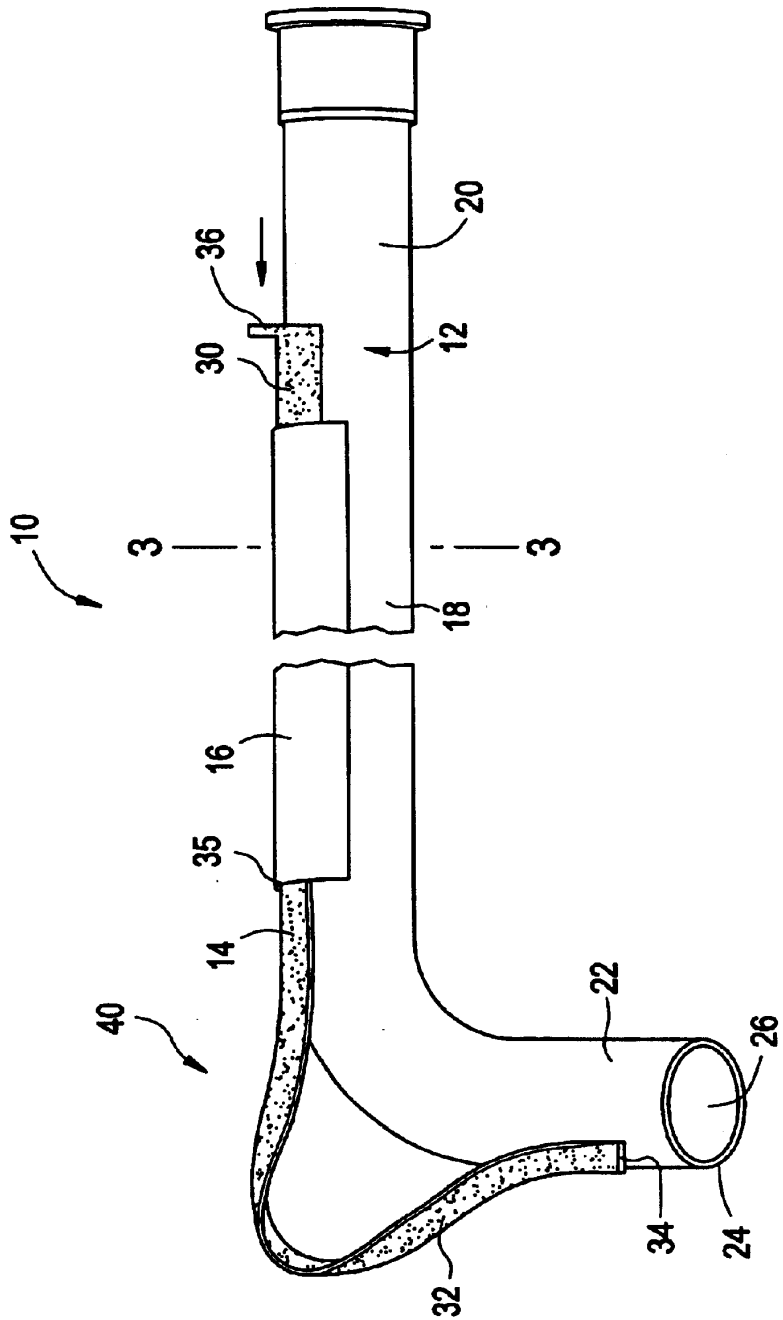


FIG. 5

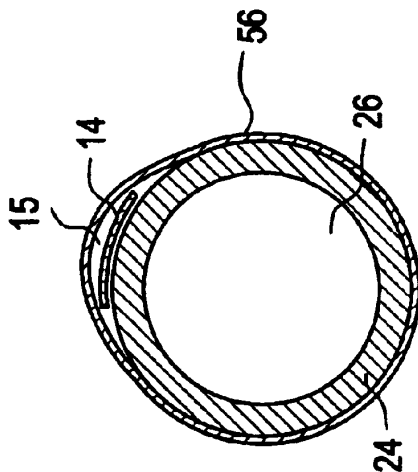


FIG. 3

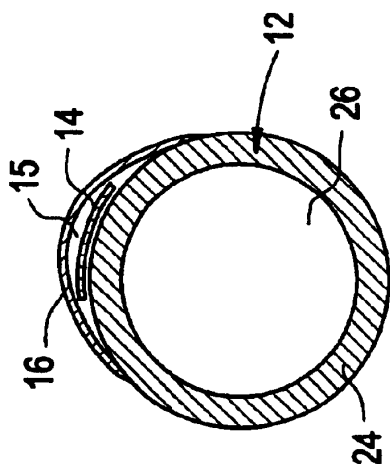
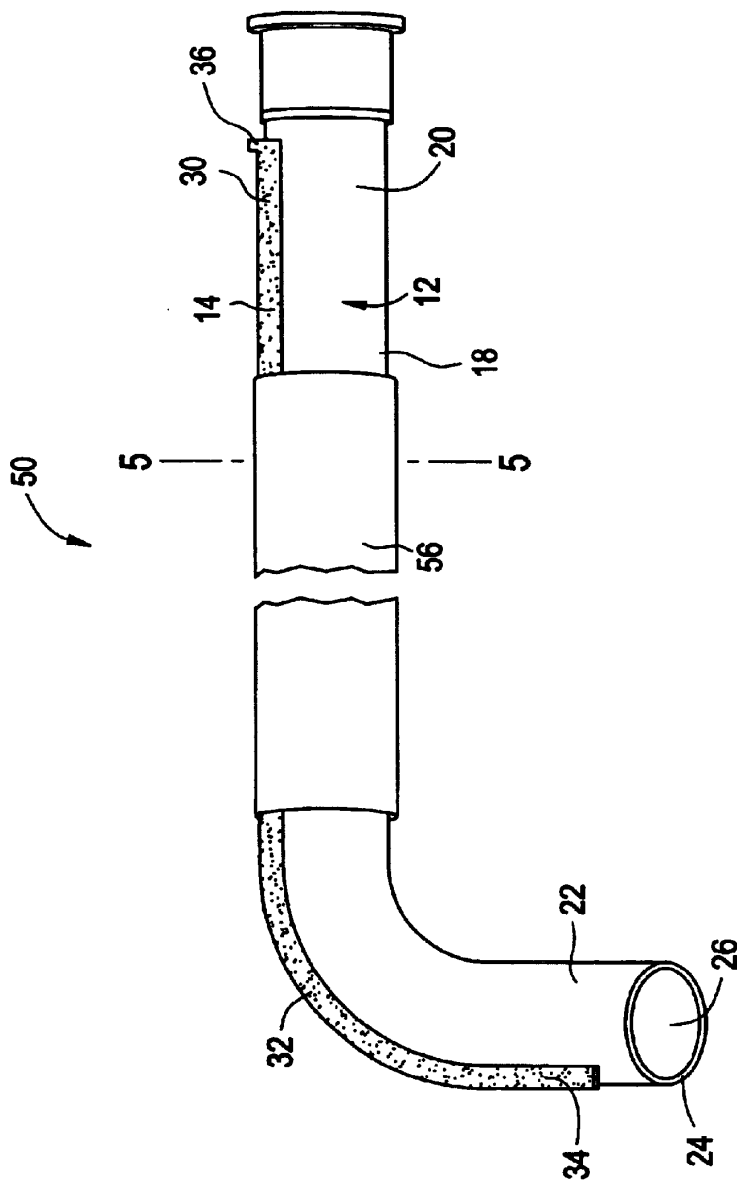


FIG. 4



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