



US005415664A

# United States Patent [19]

[11] Patent Number: **5,415,664**

**Pinchuk**

[45] Date of Patent: **May 16, 1995**

[54] **METHOD AND APPARATUS FOR INTRODUCING A STENT OR A STENT-GRAFT**

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[21] Appl. No.: **220,187**  
[22] Filed: **Mar. 30, 1994**

[51] Int. Cl.<sup>6</sup> ..... **A61M 29/00**  
[52] U.S. Cl. .... **606/108; 606/198; 604/280**  
[58] Field of Search ..... **604/104, 107-109, 604/280, 281; 606/108, 191, 198, 200**

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[57] **ABSTRACT**

A stent, stent-graft or endoluminal graft introducer

includes a hollow tube having a proximal end and a distal end and a cup-like end cap for covering the distal end. The cap is coupled to a control member which extends through the hollow tube. The proximal ends of the tube and the control member are coupled to an actuation device for effecting relative movement of the tube and control member to move the cap relative to the distal end of the tube. The distal end of a stent or stent-graft is inserted into the cup-like cap and the actuation device is manipulated to move the cap and the distal end of the tube together, thereby gripping the distal end of the stent. The introducer is inserted into a sheath and pulls the distal end of the stent into the sheath, thereby stretching it to its reduced diameter. The sheath containing the stent and the introducer is maneuvered to the site for deployment of the stent. The introducer is held in a stationary position and the sheath is withdrawn so that the a portion of the stent is released from the sheath. The introducer, stent, and sheath can then be moved as one so that the stent is precisely located before it is deployed. When the stent is in the precise location, the sheath is completely withdrawn from the stent. The actuation device is then manipulated to release the distal end of the stent from the introducer. The introducer is removed through the lumen of the stent.

**25 Claims, 6 Drawing Sheets**

