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[54] **STRETCH RESISTANT VASO-OCCLUSIVE COILS**

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[51] Int. Cl.⁶ **A61M 29/00**

[52] U.S. Cl. **606/191; 606/108; 606/198; 623/1**

[58] **Field of Search** **606/151, 213, 606/191, 108, 157, 158, 194, 195; 623/1, 12, 53, 164**

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[57] **ABSTRACT**

This invention is an implantable vaso-occlusive device. It is typically a vaso-occlusive coil comprised of a primary helically wound coil which is then wound into a secondary shape. Central to the invention is the use of a stretch-resisting member fixedly attached within at least a portion of the primary coil. This stretch-resisting member is for the primary purpose of preventing stretching of the coil during movement of the coil e.g., by retrieval or repositioning after deployment. The device typically has a self-forming secondary shape made from a pre-formed primary linear helically wound, although it need not have the secondary form. Fibers may be introduced onto the device and affixed to the pre-formed linear member. The constituent member may be also be covered with a fibrous braid. The device is typically introduced through a catheter. The device is passed axially through the catheter sheath and assumes its form upon exiting the catheter without further action.

13 Claims, 5 Drawing Sheets

