



US005443456A

United States Patent [19]

[11] Patent Number: **5,443,456**

Alliger et al.

[45] Date of Patent: **Aug. 22, 1995**

[54] CATHETER WITH COLLAPSIBLE WIRE GUIDE

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[21] Appl. No.: **195,915**

[22] Filed: **Feb. 10, 1994**

4,887,606	12/1989	Yock et al. .	
4,920,954	5/1990	Alliger et al. .	
5,000,185	3/1991	Yock .	
5,003,990	4/1991	Osyпка .	
5,037,387	8/1991	Quinn et al.	604/270
5,040,548	8/1991	Yock .	
5,061,267	10/1991	Zeiber	606/194
5,061,273	10/1991	Yock .	
5,102,403	4/1992	Alt	128/772
5,112,310	5/1992	Grobe	604/175
5,131,407	7/1992	Ischinger et al.	128/657
5,342,300	8/1994	Stefanadis et al.	604/95

Related U.S. Application Data

[62] Division of Ser. No. 9,207, Jan. 22, 1993, Pat. No. 5,306,261.

[51] Int. Cl.⁶ **A61M 25/00**

[52] U.S. Cl. **604/280; 128/657; 128/772**

[58] Field of Search 604/95, 164, 264, 270, 604/280; 128/658, 772; 606/194

References Cited

U.S. PATENT DOCUMENTS

3,777,761	12/1973	Sheridan	604/175
4,114,618	9/1978	Vargas .	
4,236,521	12/1980	Lauterjung	604/270
4,722,724	2/1988	Schocket	604/8
4,748,982	6/1988	Horzewski et al. .	
4,762,519	8/1988	Frimberger	604/270
4,794,931	1/1989	Yock .	
4,824,435	4/1989	Giesy et al.	604/280
4,850,358	7/1989	Millar	128/675

FOREIGN PATENT DOCUMENTS

0376692	8/1907	France	604/264
2934628	3/1981	Germany	604/270

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[57] ABSTRACT

A catheterization assembly comprises an elongate substantially cylindrical catheter having an outer surface, and a flexible collapsible guide element attached to the outer surface of the catheter at a distal end thereof. A guidewire extends generally parallel to the catheter and through the guide element so that the guide element is held in an extended guide configuration away from the outer surface.

4 Claims, 3 Drawing Sheets

