

## (12) United States Patent

Norred

US 6,482,228 B1 (10) Patent No.: (45) Date of Patent: Nov. 19, 2002

(54)	PERCUTANEOUS AORTIC VALVE REPLACEMENT							
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(*)	Notice:	Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.						
(21)	Appl. No.: 09/712,121							
(22)	Filed:	Nov. 14, 2000						
(52)	Int. Cl. <sup>7</sup>							
(56) References Cited								
U.S. PATENT DOCUMENTS								
	4,787,901 A 5,397,351 A	* 11/1988 Baykut						

5,413,599	A	*	5/1995	Imachi	623/2.1
5,545,215	Α	\$	8/1996	Duran	623/2.1
5,549,665	Α	*	8/1996	Vesely	623/2.1
5,891,195	Λ	η¢	4/1999	Klostermeyer	623/2.1
5,957,949	Α	*		Leonhardt	
6,027,525	Α	afe.	2/2000	Suh	623/2.1
6,110,201	Α	*	8/2000	Quijano	623/2.1
6,168,614	В1	*	1/2001	Anderson	623/12.2
6,254,642	B1	*	7/2001	Taylor	623/12.2
6,264,700	B1	*	7/2001	Kilcoyne	623/12.2

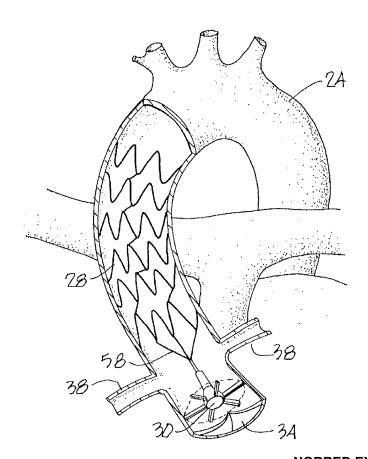
<sup>\*</sup> cited by examiner

Primary Examiner—Corrine McDermott Assistant Examiner-William H Matthews (74) Attorney, Agent, or Firm-Chase Law Firm, L.C.

### ABSTRACT

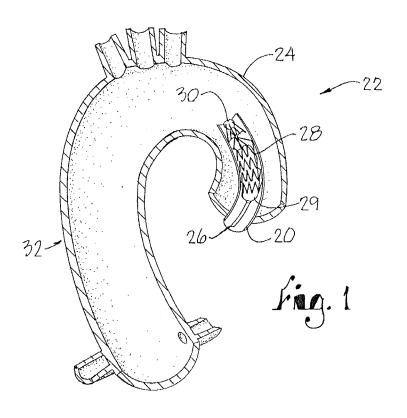
An aortic heart valve which is adapted to be placed percutancously without the need for open-heart surgery is placed by a catheter and held in place with a stent system. The stent system is expanded in the ascending aorta to anchor the valve in the aortic channel above the native aortic valve.

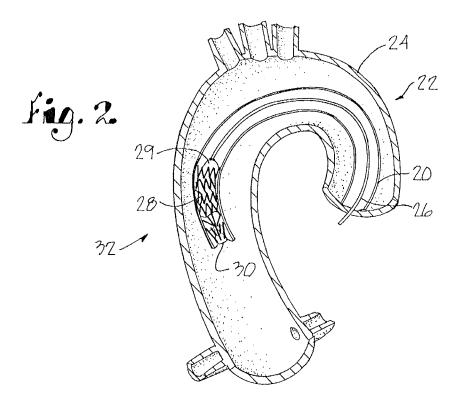
#### 24 Claims, 7 Drawing Sheets

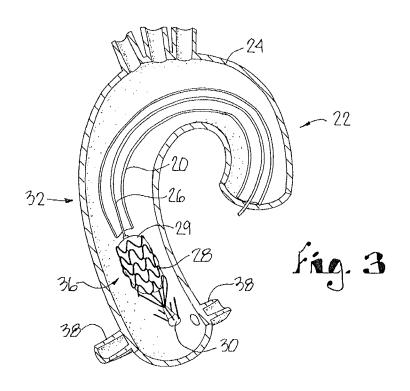


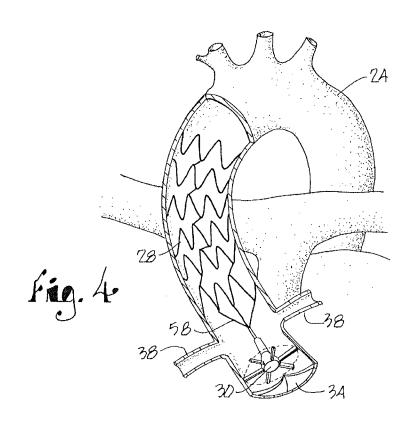
NORRED EXHIBIT 2230 - Page 1 Medtronic, Inc., Medtronic Vascular, Inc., & Medtronic Corevalve, LLC



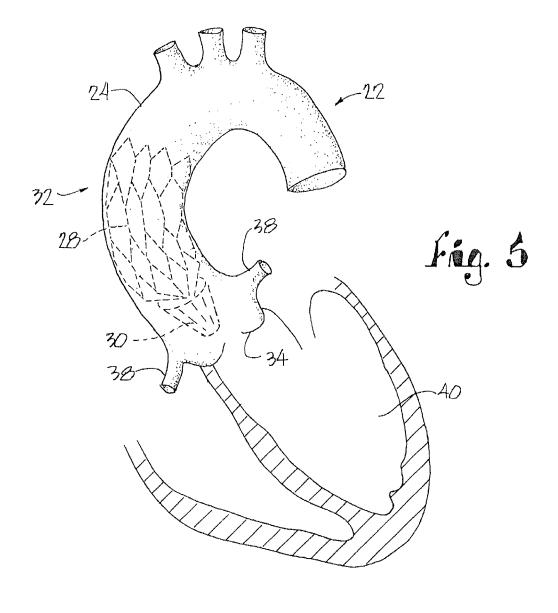




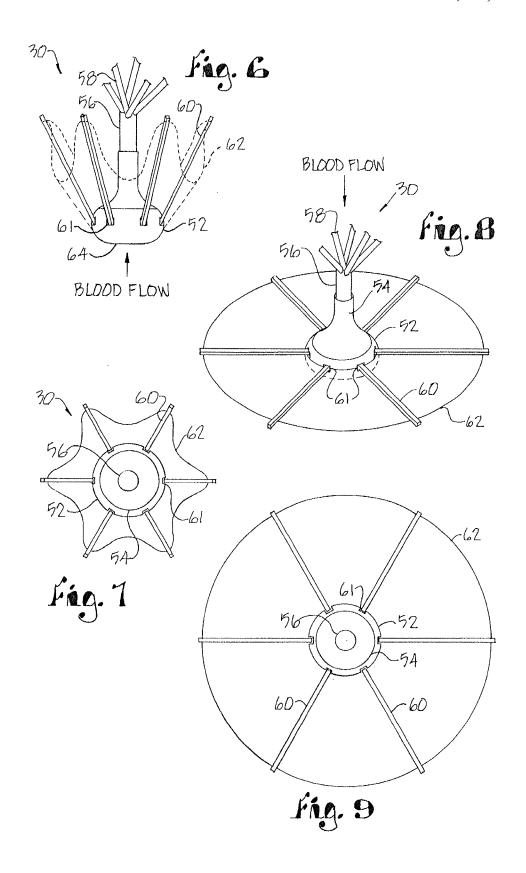




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