



United States Patent [19]

Davis et al.

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[45] Date of Patent: **Nov. 17, 1998**

- [54] **HAND-HELD STENT CRIMPER**
- [75] Inventors: **Horace R. Davis**, Pembroke Pines;
Phillip G. Reed, Davie, both of Fla.
- [73] Assignee: **Cordis Corporation**, Miami Lakes, Fla.
- [21] Appl. No.: **700,816**
- [22] Filed: **Aug. 21, 1996**
- [51] Int. Cl.⁶ **A61F 11/00**
- [52] U.S. Cl. **606/108**; 606/1; 606/198
- [58] Field of Search 606/1, 108, 191,
606/194, 198; 53/204, 209, 211, 213, 214,
203

5,259,109	11/1993	Fefeu et al.	29/235
5,437,083	8/1995	Williams et al.	29/235
5,476,505	12/1995	Limon	623/1
5,626,604	5/1997	Cottone, Jr.	606/198
5,630,830	5/1997	Verbeek	606/198

Primary Examiner—Michael Buiz
Assistant Examiner—Julian W. Woo
Attorney, Agent, or Firm—Lockwood, Alex, Fitzgibbon & Cummings

[57] ABSTRACT

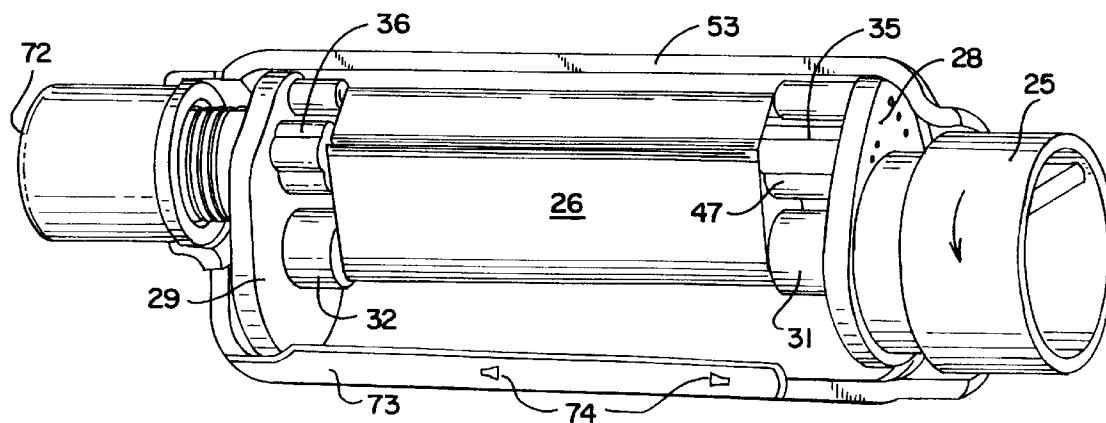
A stent crimper is provided for loading a stent onto a catheter in order to provide a stenting assembly that is suitable for use in procedures in conjunction with percutaneous transluminal angioplasty and percutaneous transluminal coronary angioplasty catheters. The crimper has a stent holding member or sheath which supports the stent by its exterior surface so that a balloon of a catheter can be slid within the stent. An elongated wrapping member or belt winds around the sheath. By properly manipulating the belt, the belt applies generally cylindrical radially directed forces onto the sheath and thus onto the stent within the sheath, as well as the balloon beneath the stent, in order to crimp the stent onto the balloon. A procedure is also illustrated by which a stent is crimped onto the balloon by a hand-held crimper which can be discarded after stent delivery and crimping has been completed.

33 Claims, 4 Drawing Sheets

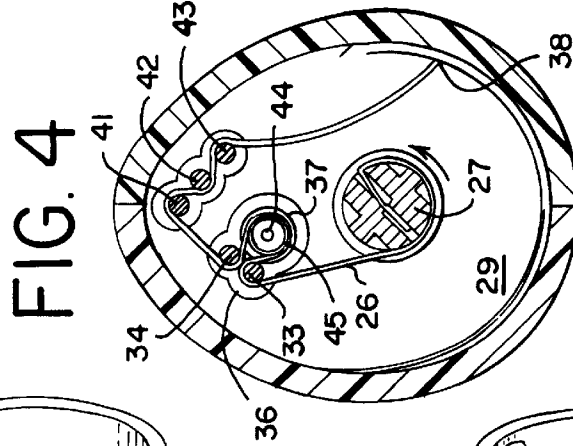
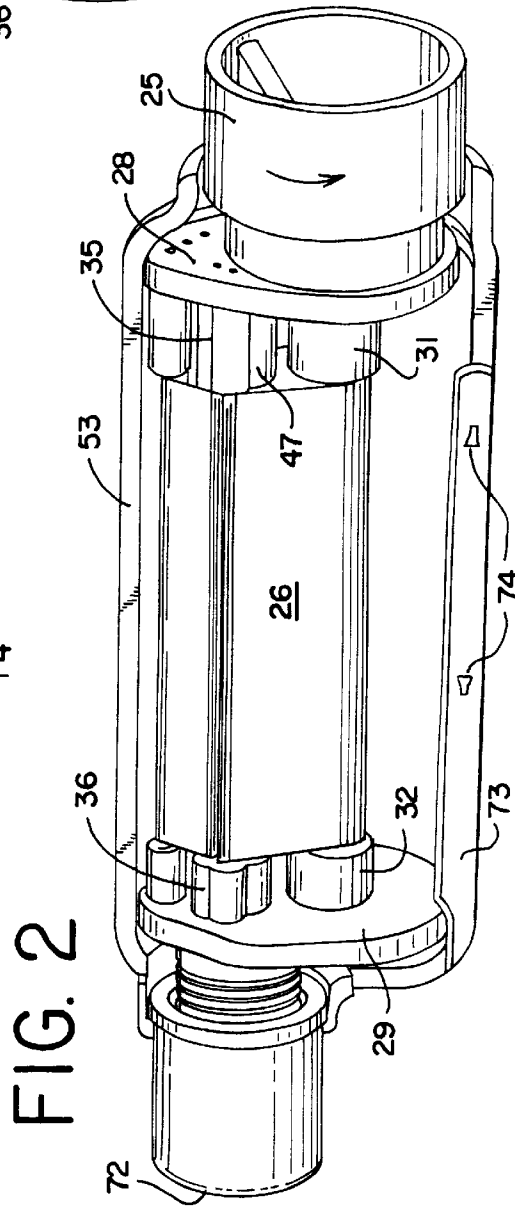
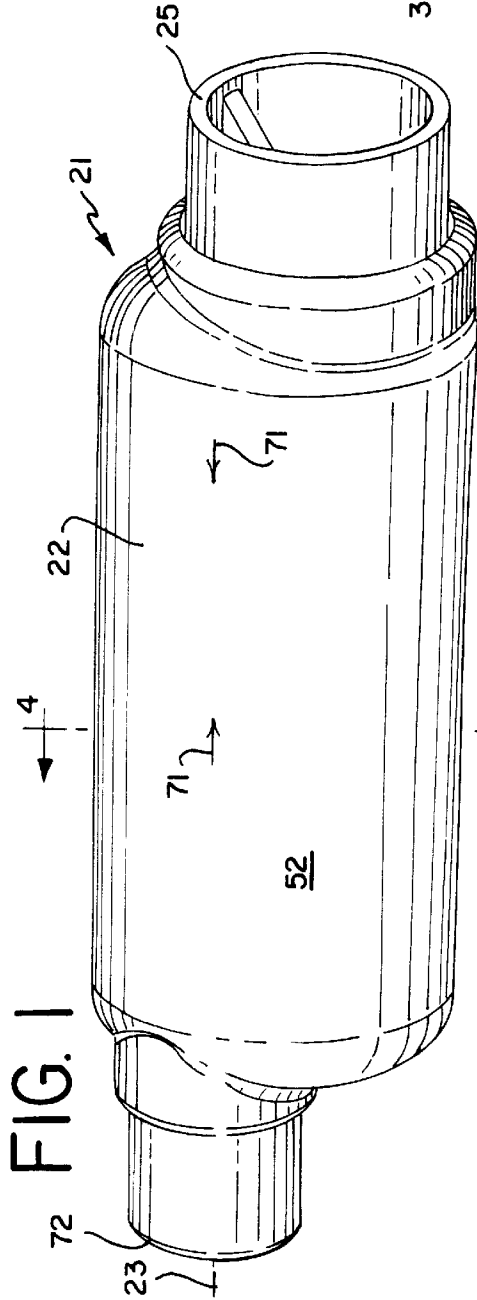
[56] References Cited

U.S. PATENT DOCUMENTS

1,306,354	6/1919	Robbins	279/48
1,765,362	6/1930	Berry	279/48
2,455,019	11/1948	McNeill	401/93
2,468,946	5/1949	Sherman	279/48
2,978,250	4/1961	Abadjieff	279/48
3,353,395	11/1967	Rauch	72/402
4,215,871	8/1980	Hirsch et al.	279/48
4,341,002	7/1982	Diba	29/235
4,553,545	11/1985	Maass et al.	606/198
5,096,111	3/1992	Ishikawa et al.	29/235
5,201,901	4/1993	Harada et al.	606/198



Edwards Lifesciences v. Boston Scientific
U.S. Patent No. 6,915,560
IPR2017-00444 EX. 2025



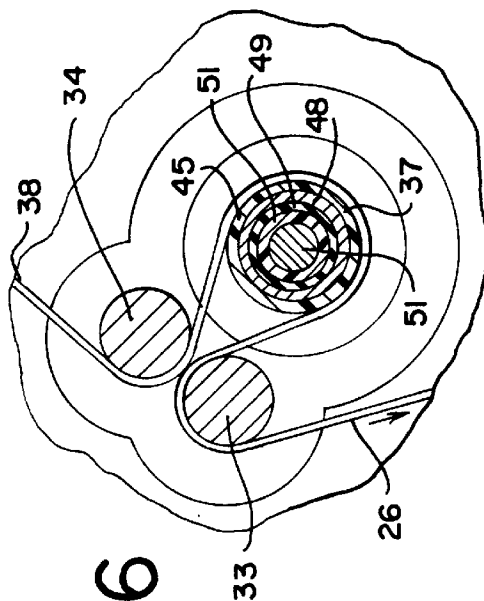
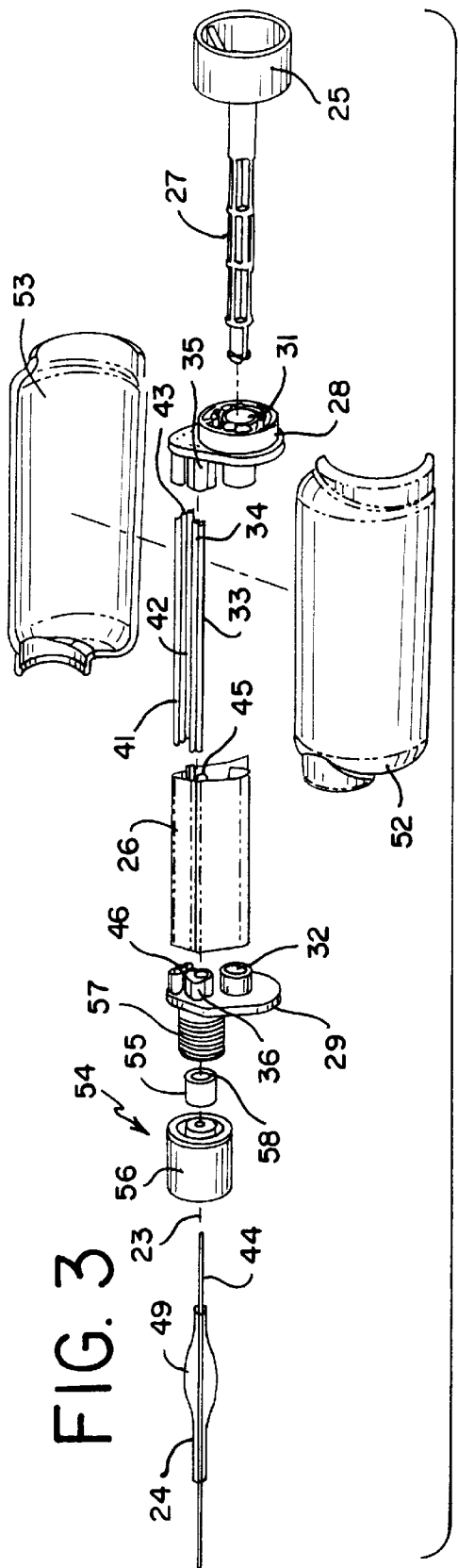


FIG. 6

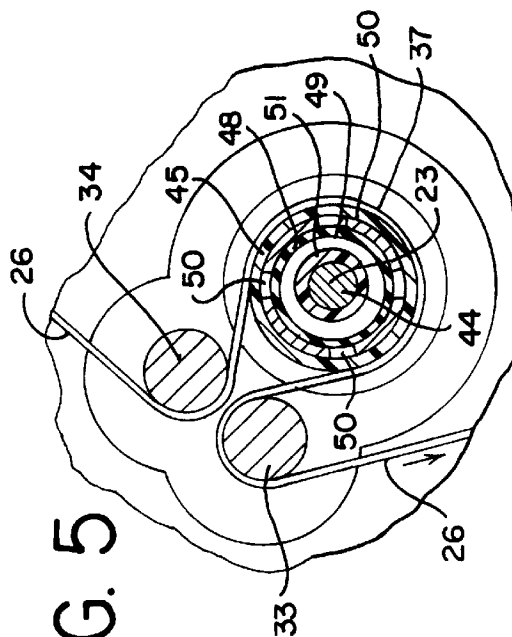


FIG. 5

FIG. 7

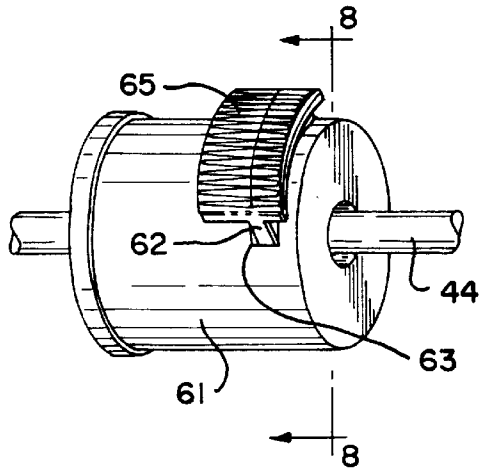


FIG. 8

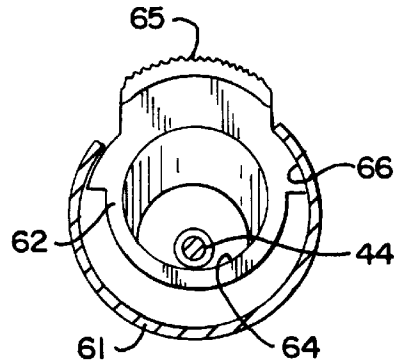


FIG. 9

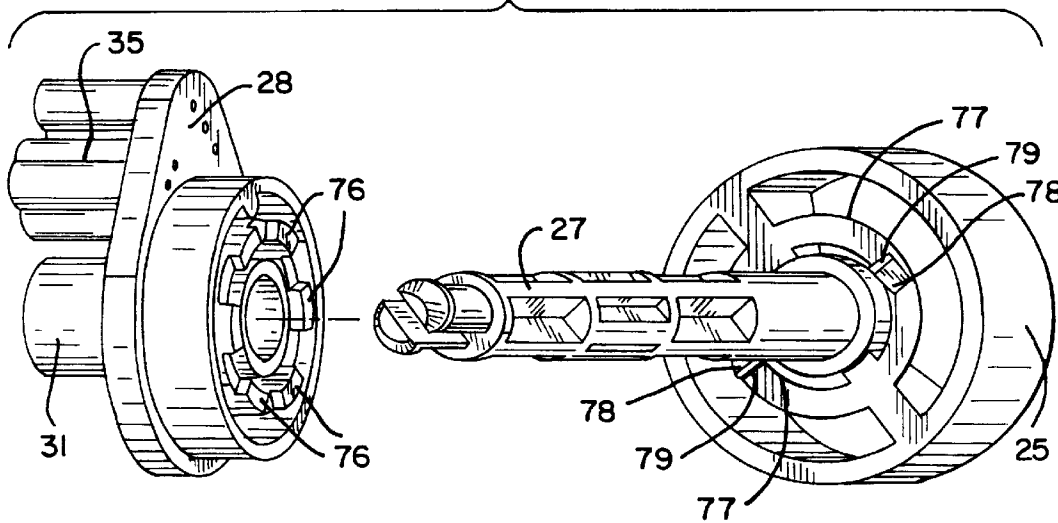


FIG. 10

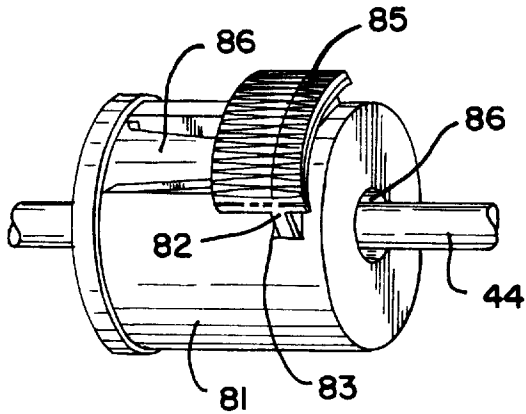


FIG. 11

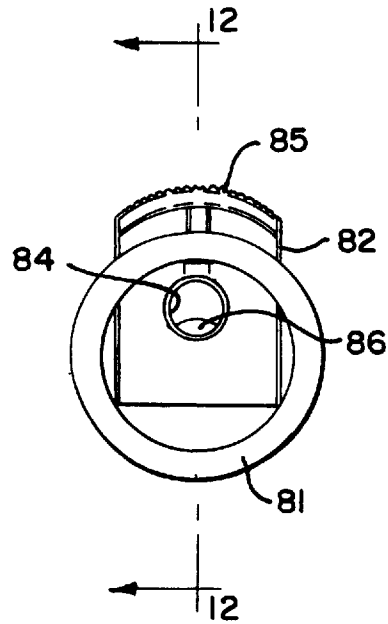


FIG. 12

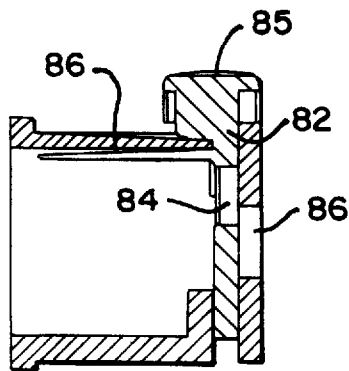
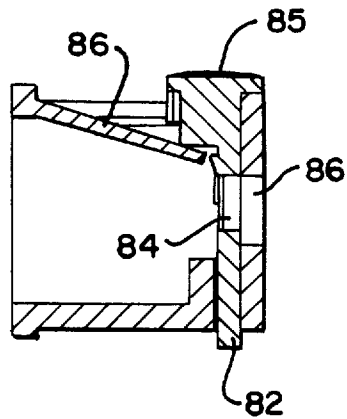


FIG. 13



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