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United States Patent [19]

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Walker et al.

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- [54] **EXCHANGEABLE INTEGRATED-WIRE BALLOON CATHETER**
- [75] Inventors: **Blair D. Walker, Long Beach; Sheryl W. Higgins, Silverado, both of Calif.**
- [73] Assignee: **Baxter International Inc., Deerfield, Ill.**
- [21] Appl. No.: **970,581**
- [22] Filed: **Oct. 22, 1992**

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Primary Examiner—John D. Yasko
Attorney, Agent, or Firm—Debra D. Condino; Raymond Sun

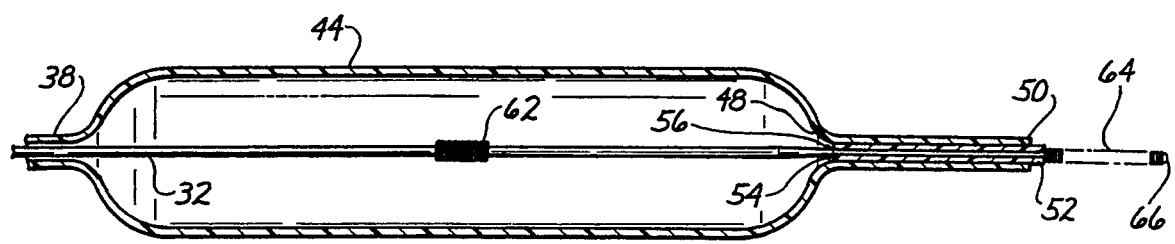
- Related U.S. Application Data**
- [63] Continuation of Ser. No. 690,447, Apr. 24, 1991, abandoned.
 - [51] **Int. Cl.⁵** **A61M 29/00**
 - [52] **U.S. Cl.** **604/96; 606/194**
 - [58] **Field of Search** **604/96, 99, 100, 101, 604/167; 606/192-194**

[57] ABSTRACT

A fully exchangeable integrated-wire dilation catheter for performing angioplasty is disclosed having a flexible small diameter guide wire provided with an enlarged diameter distal end portion and a flexible elongated tubular shaft with at least one dual function fluid conducting lumen adapted to receive the guide wire extending therethrough. The distal end of the tubular shaft is connected to the proximal end of an expandable balloon provided with a coaxially aligned distal orifice having means for releasably engaging the enlarged distal end portion of the guide wire in sealing relationship. In a preferred embodiment the sealing means is a flexible sleeve extending from the distal orifice of the expandable balloon and dimensioned to slidingly engage the correspondingly sized enlarged distal end portion of the guide wire. Associated procedures for utilizing the dilation catheter are also disclosed.

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21 Claims, 4 Drawing Sheets



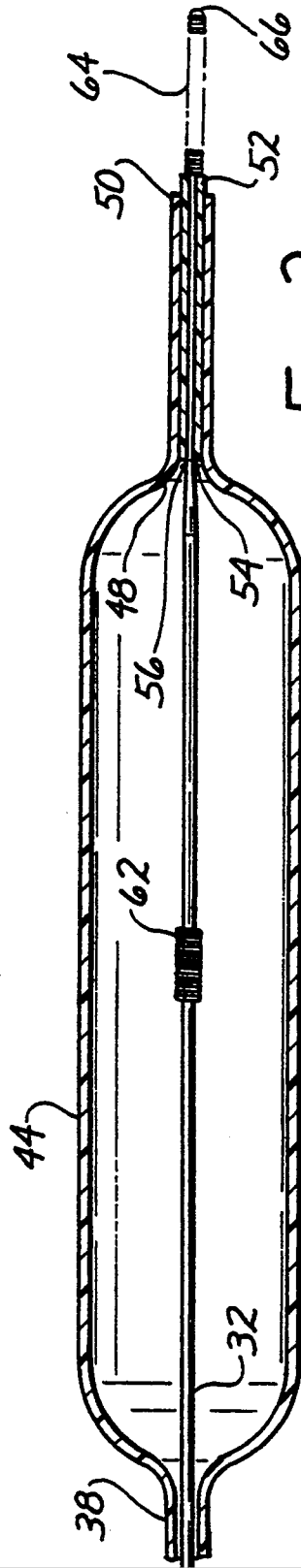
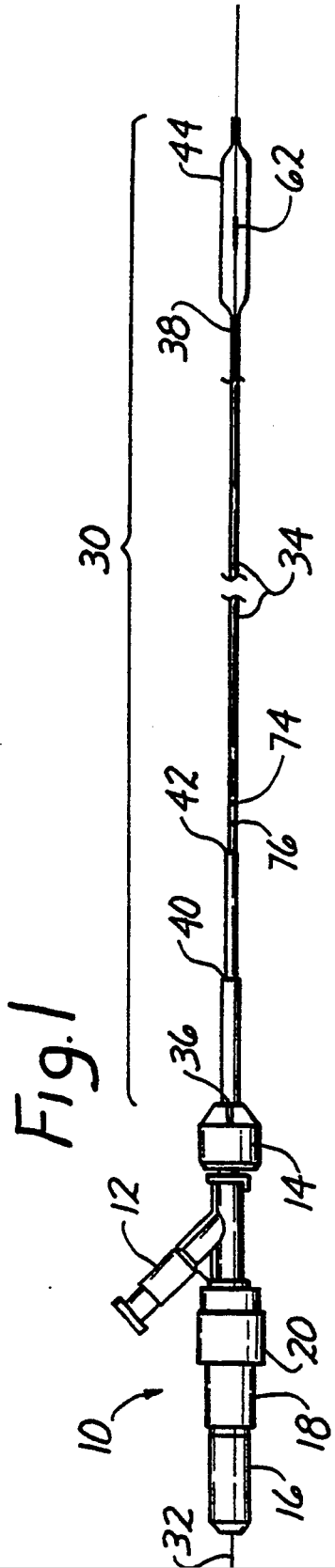


Fig. 2

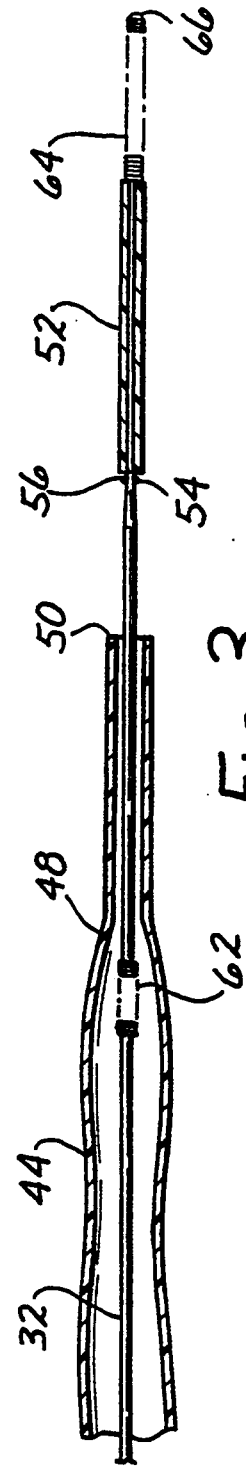


Fig. 3

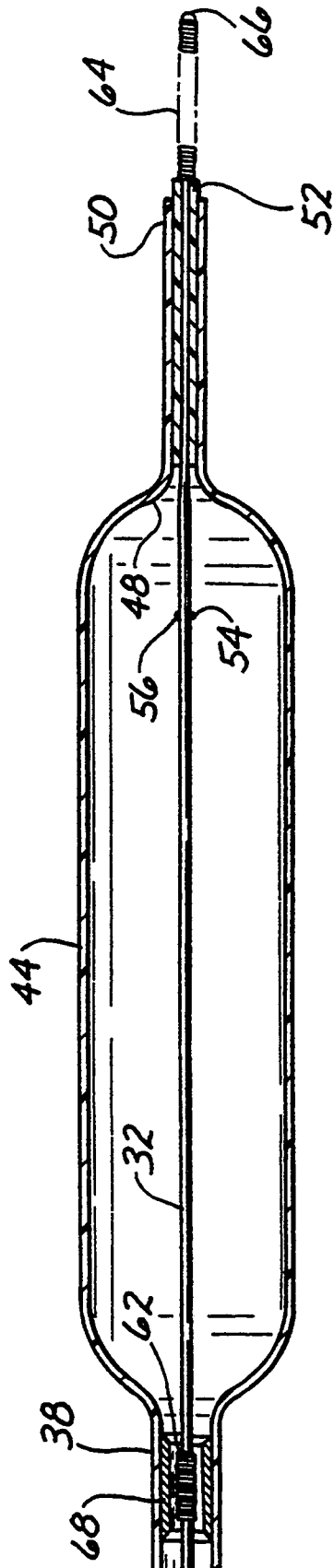


Fig. 4

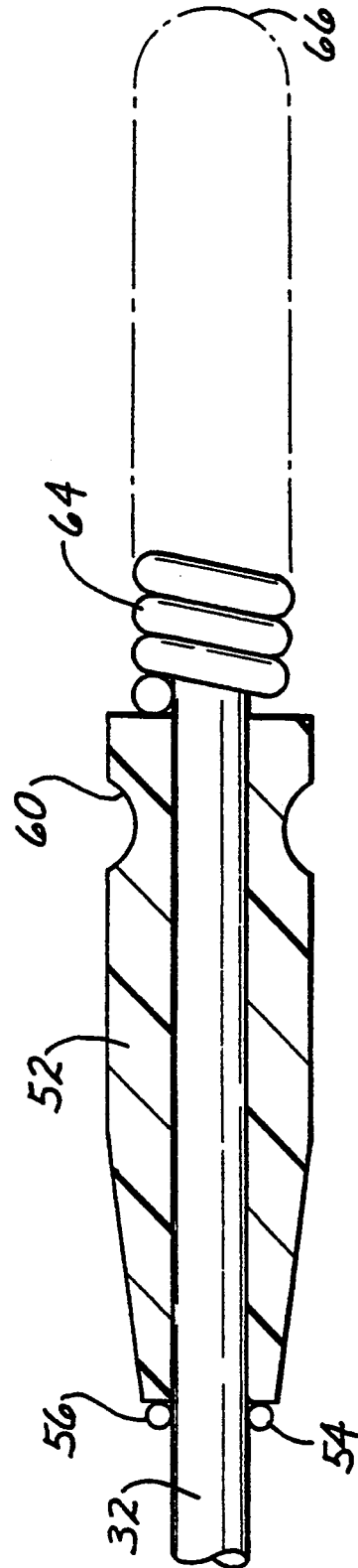
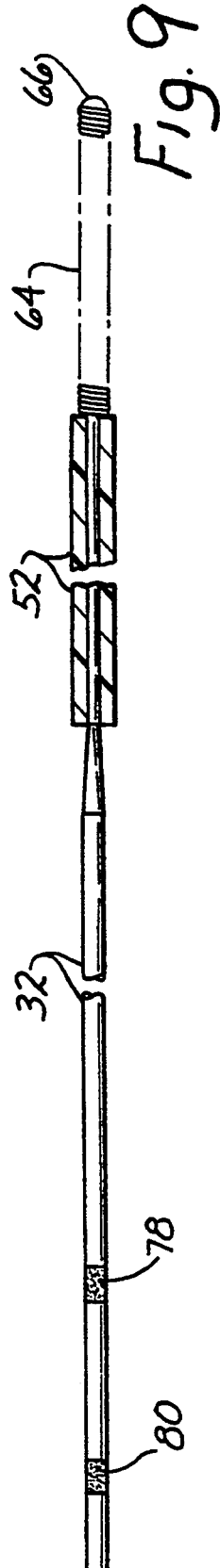
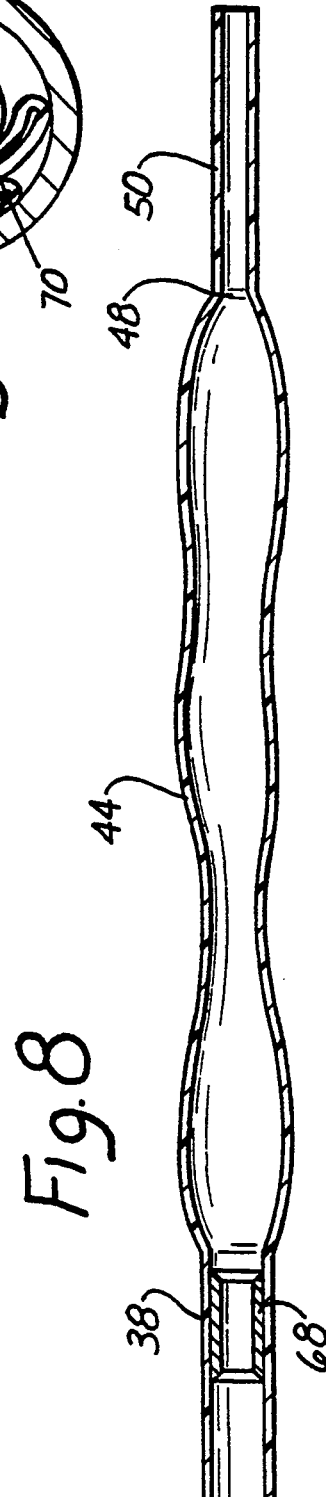
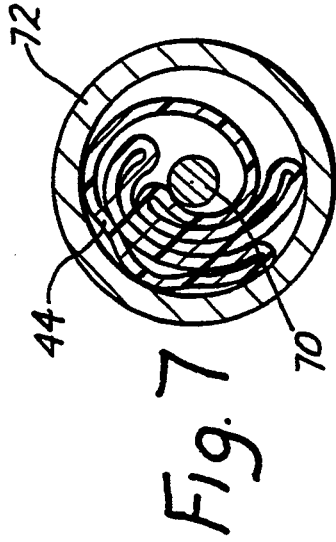
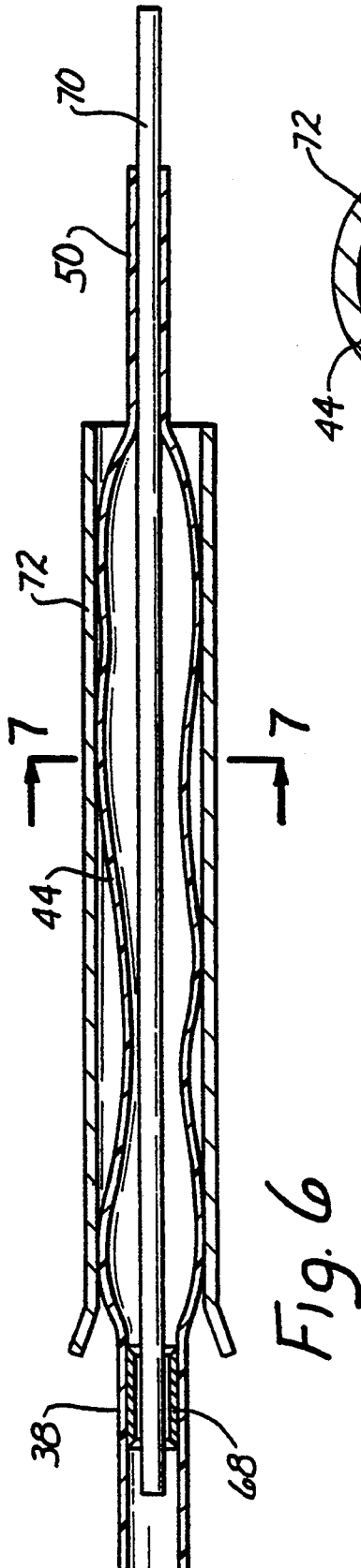
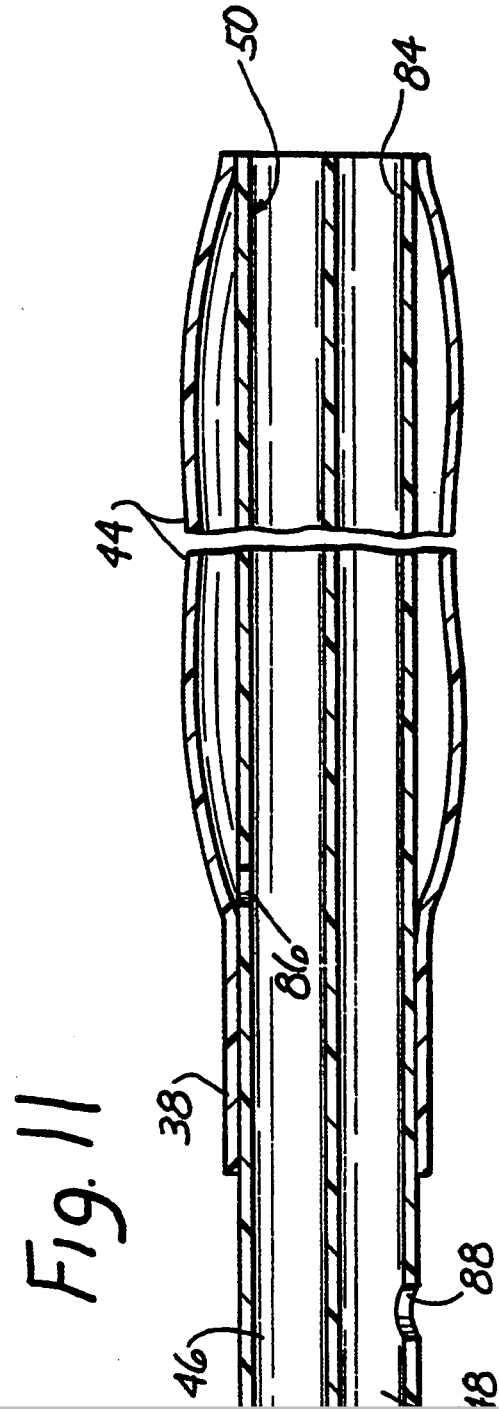
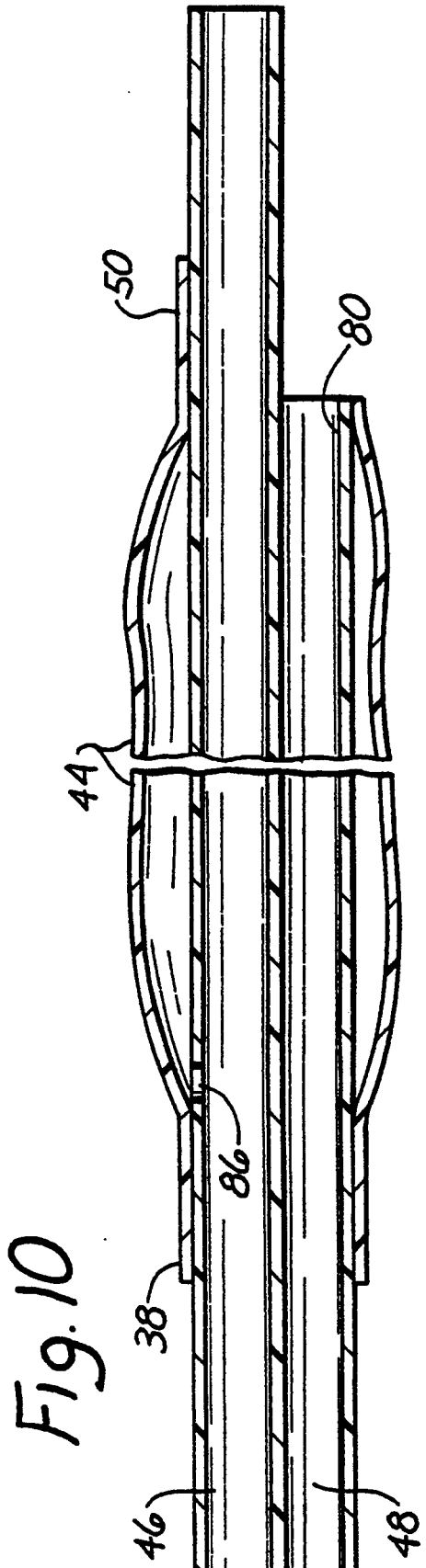


Fig. 5





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