



US005725519A

United States Patent [19]

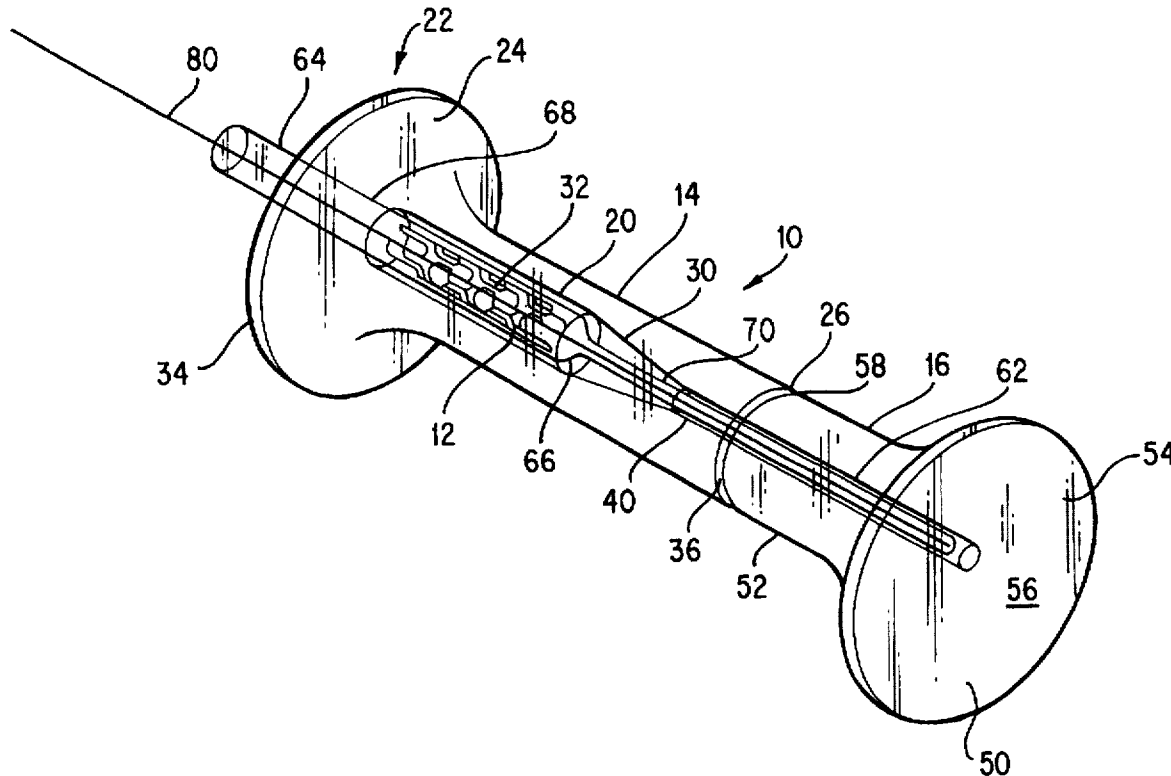
Penner et al.

[11] **Patent Number:** 5,725,519[45] **Date of Patent:** Mar. 10, 1998[54] **STENT LOADING DEVICE FOR A BALLOON CATHETER**[75] **Inventors:** Abraham Penner, Tel-Aviv; Ofer Nativ, Rishon Lezion, both of Israel[73] **Assignee:** Medtronic InStent Israel Ltd., Holon, Israel[21] **Appl. No.:** 724,543[22] **Filed:** Sep. 30, 1996[51] **Int. Cl.⁶** A61B 19/00[52] **U.S. Cl.** 606/1; 606/198[58] **Field of Search** 606/1, 108, 190.2; 29/234, 235, 282, 283[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Glenn K. Dawson*Attorney, Agent, or Firm*—Levisohn, Lerner, Berger & Langsam[57] **ABSTRACT**

A device for loading a medical stent on a balloon catheter. A tube, preferable pre-installed with a stent, is secured to one component having a pulling knob. The tube with stent extends into the bore of a second component, also having a pulling knob. The bore of the second component is conical and reduces down in the direction of the first component. For intended use, the preselected balloon catheter is inserted within the confines of the lumen of the tube (which places it within the center of the stent). Then, the two knobs are pulled apart. The force of the pull causes the tube, with the stent around the catheter within it, to pass through the decreasing bore, thereby loading and compressing the stent onto the balloon catheter. The tube serves as the vehicle to carry the balloon catheter and stent through the bore for loading the stent onto the balloon catheter. The tube can be Teflon coated to facilitate the pulling and stent loading or, alternatively, the tube can be elastic and/or plastic.

21 Claims, 6 Drawing Sheets

Edwards Lifesciences v. Boston Scientific
U.S. Patent No. 6,915,560
IPR2017-00072 EX. 2004

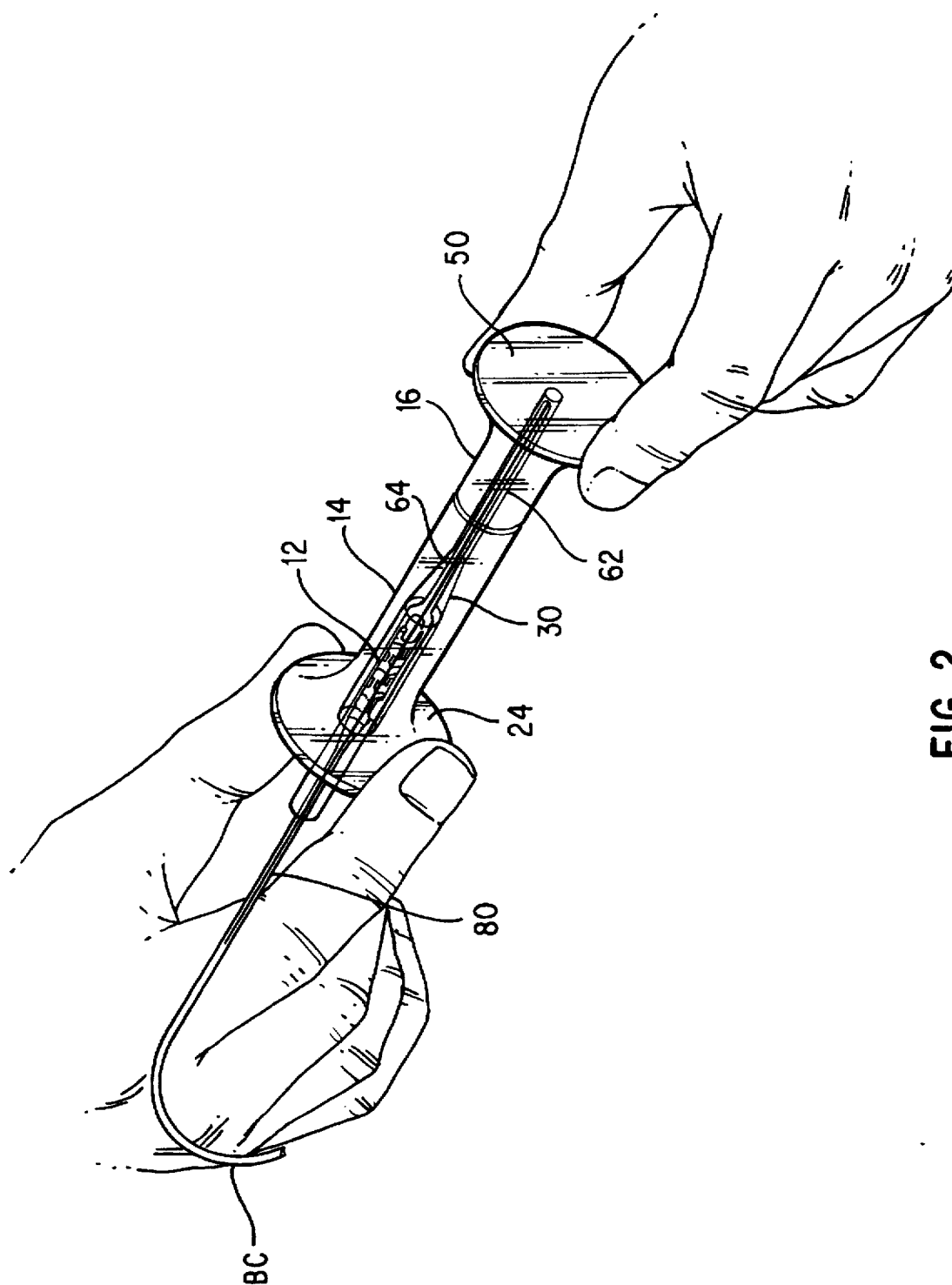


FIG. 2

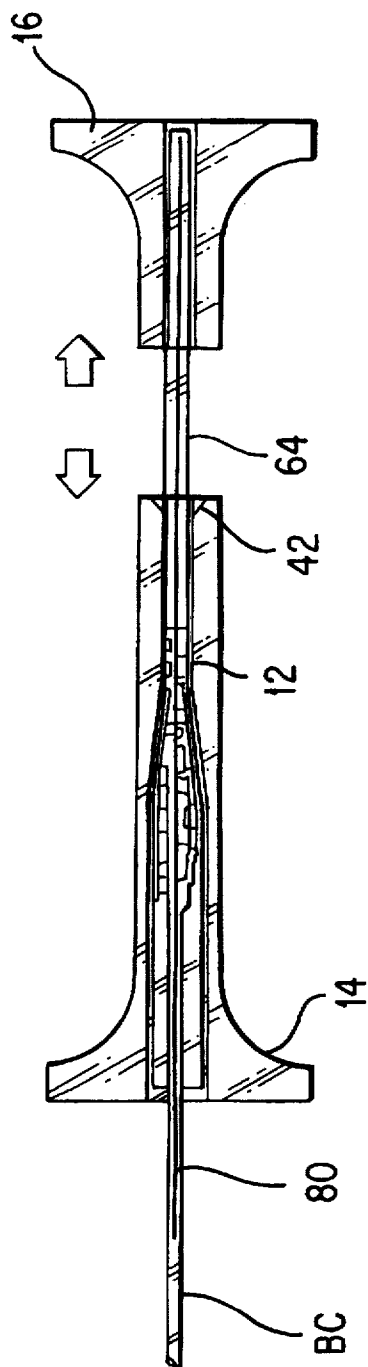


FIG. 3

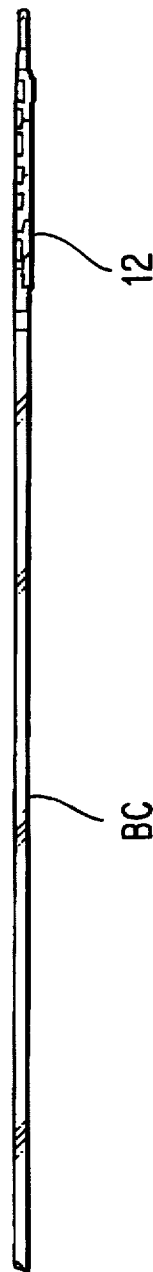


FIG. 6

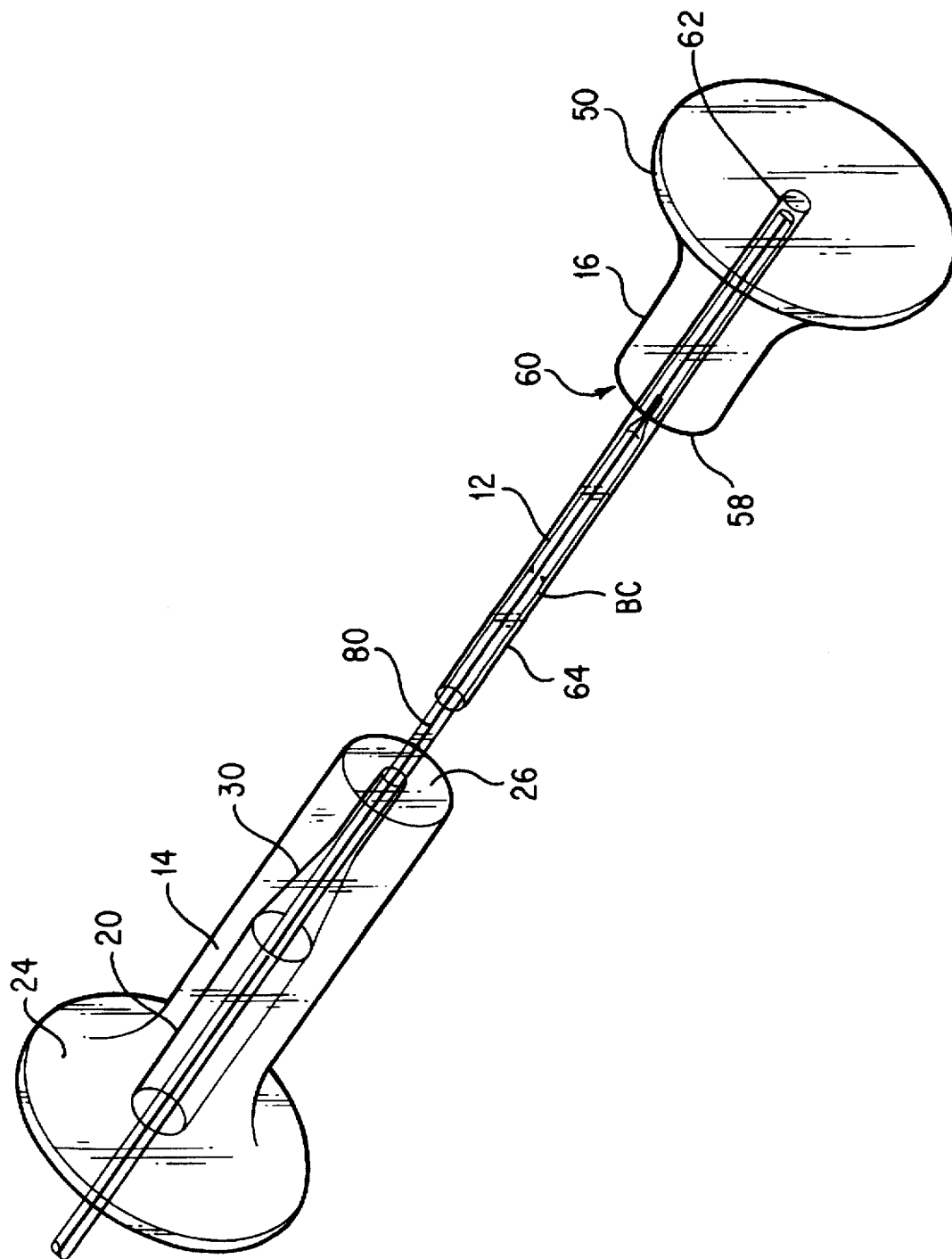


FIG. 4

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