

United States Patent [19]
Cottone, Jr.

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 [45] **Date of Patent:** **May 6, 1997**

[54] **HAND HELD STENT CRIMPING DEVICE**

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[21] Appl. No.: **567,313**

[57] **ABSTRACT**

[22] Filed: **Dec. 5, 1995**

A stent loading device is provided for loading a stent on a catheter of the type used in percutaneous transluminal angioplasty (PTA) or percutaneous transluminal coronary angioplasty (PTCA) procedures. The device has an end unit for holding a stent, a collet having a plurality of radially compressible fingers fitted to said end unit, a main body having a plurality of finger-like extensions whose distal ends can be fitted into openings in said base unit, a proximal extension for receiving a cap with compressible washer therein fitted to said main body proximal extension, a rotatable sleeve with collet driver fitted about said collet and main body finger-like extensions and a guide wire embedded in end unit and longitudinally extending through said device to either terminate at the proximal end of said cap or extend a distance from the proximal end of said cap. The stent loading device serves as a stent delivery tool within which a catheter is inserted, after which the stent is crimped onto the catheter balloon. The stent loading device is disposable and well-suited for one-time use.

[51] **Int. Cl.⁶** **A61M 29/00**

[52] **U.S. Cl.** **606/198; 606/1; 606/108; 606/192**

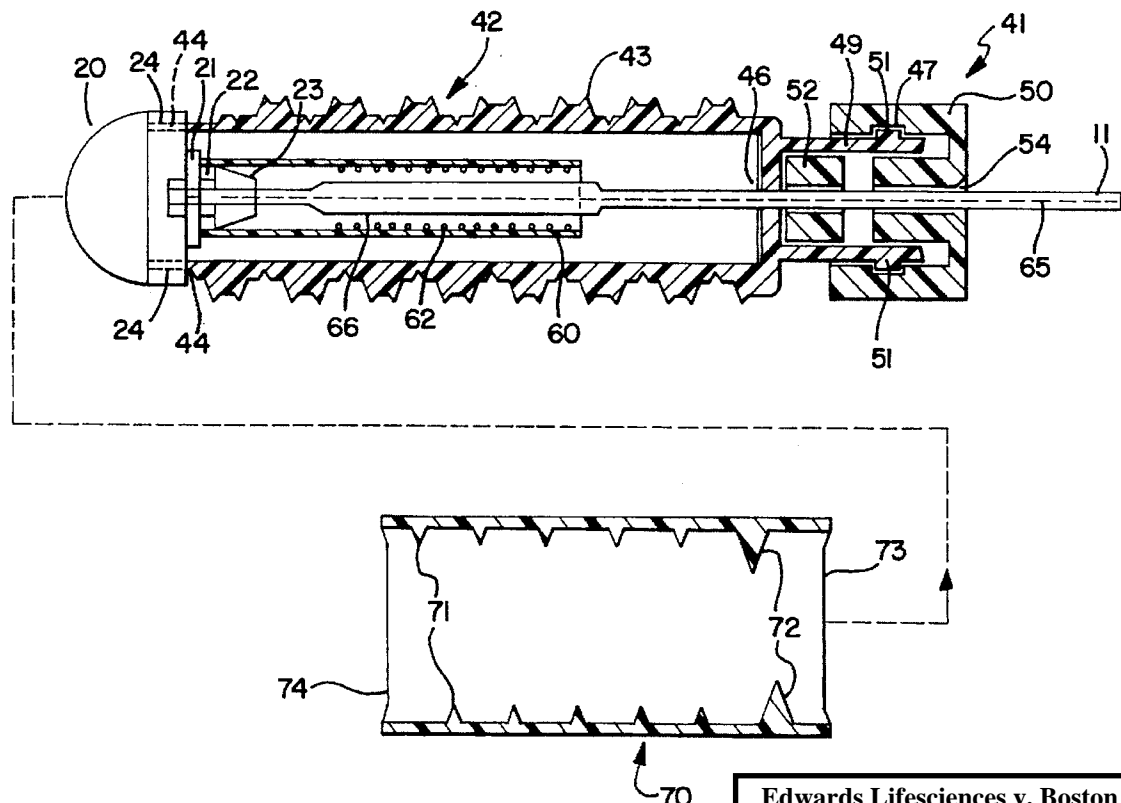
[58] **Field of Search** 29/235, 234, 282, 29/283; 606/108, 192, 194, 198

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19 Claims, 6 Drawing Sheets



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FIG. 1

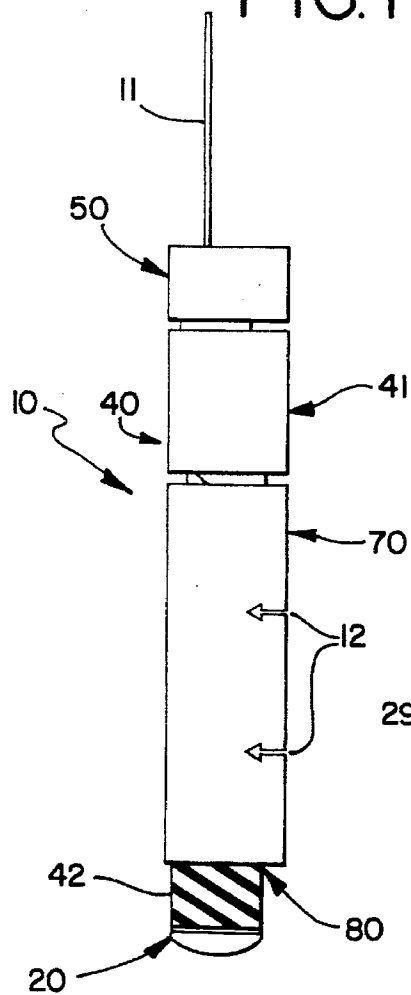


FIG. 4

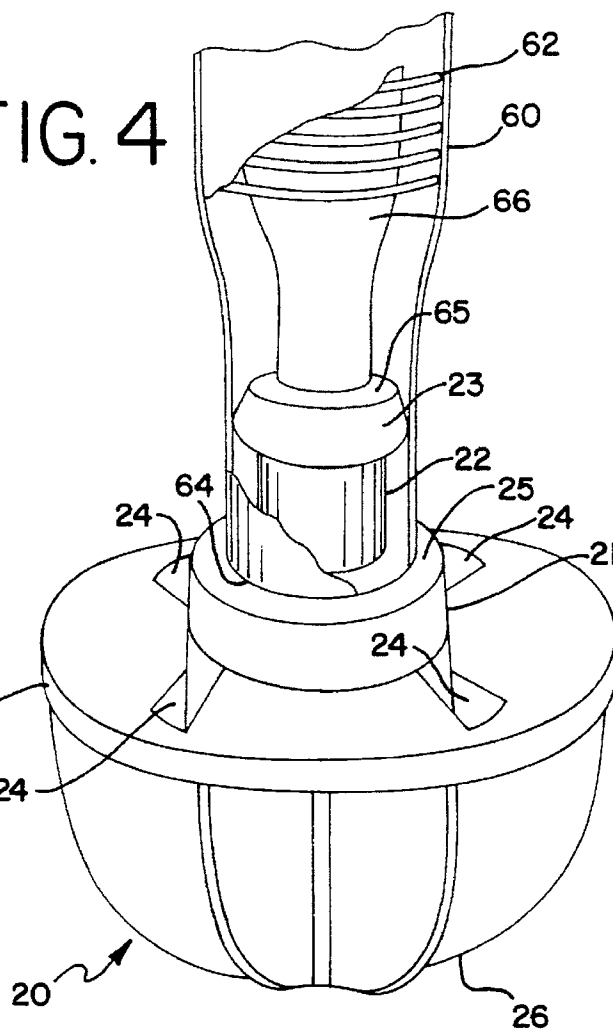


FIG. 9

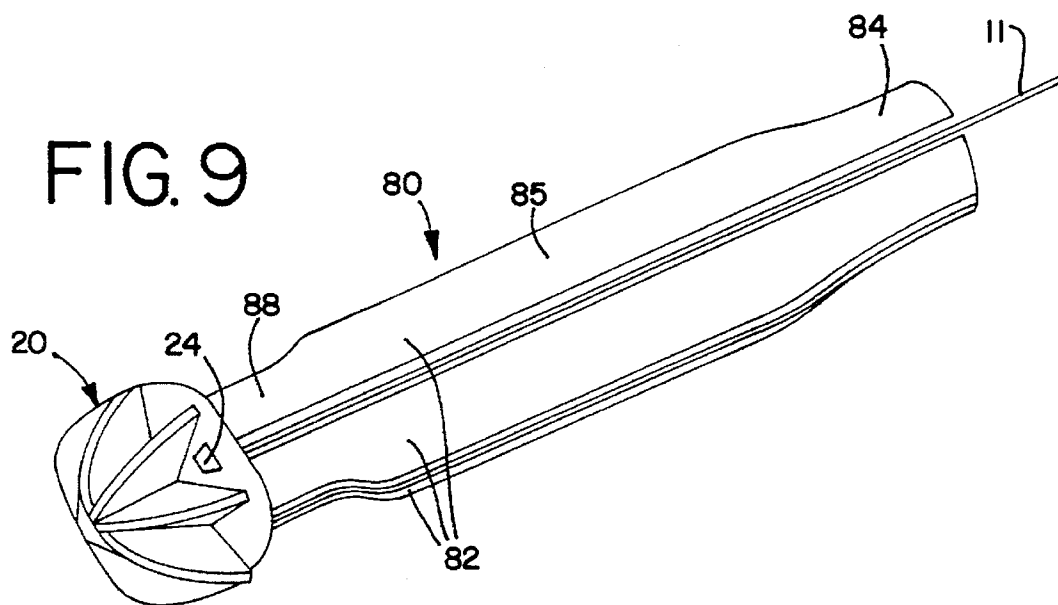


FIG. 2

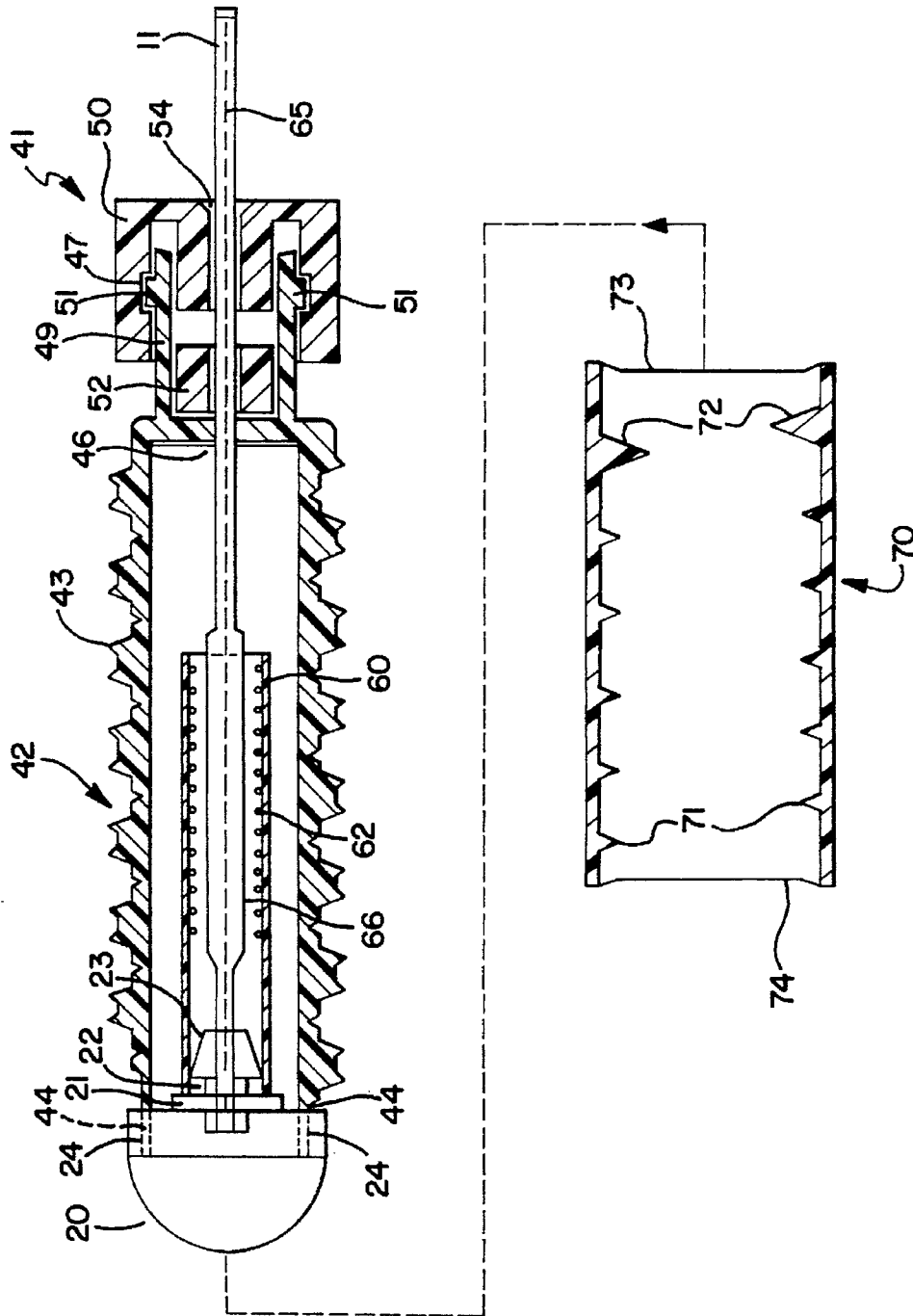


FIG. 3a

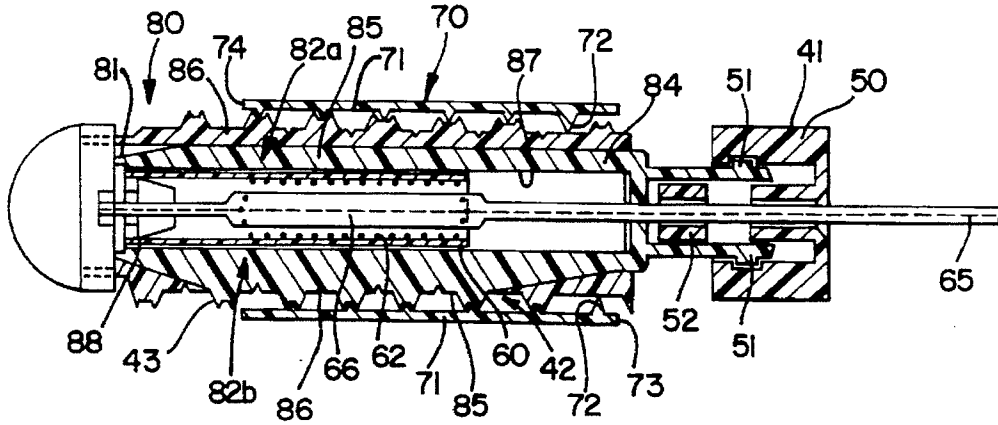


FIG. 3b

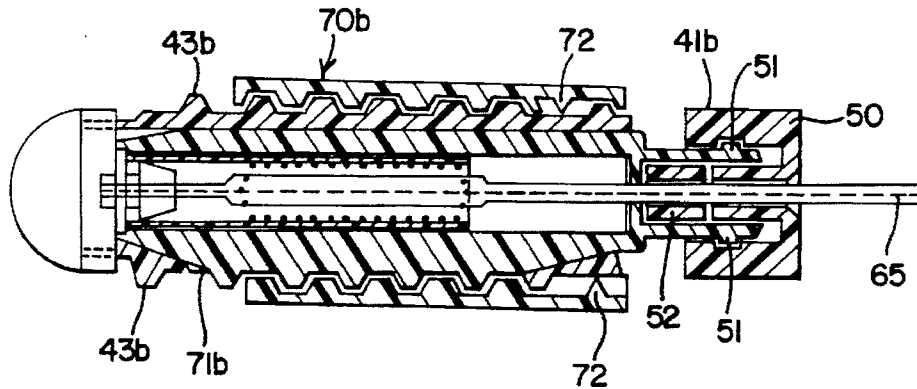


FIG. 3c

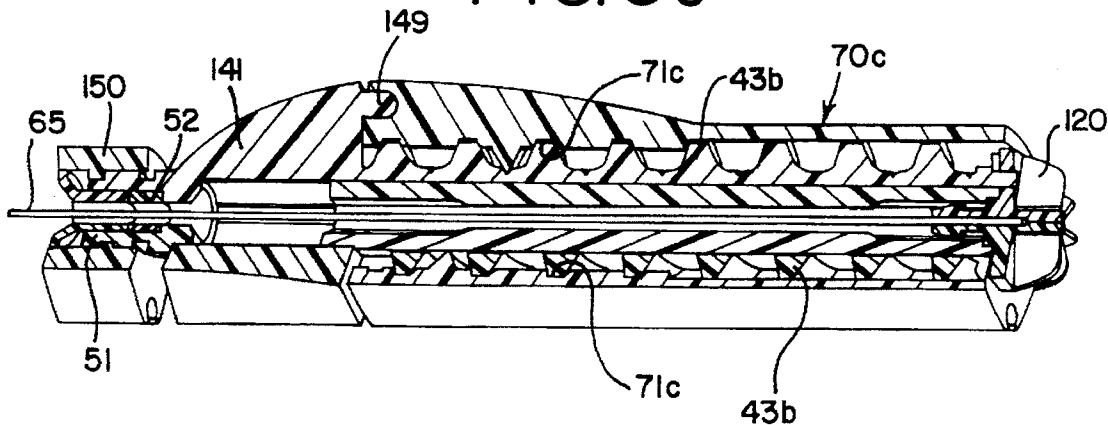


FIG. 5

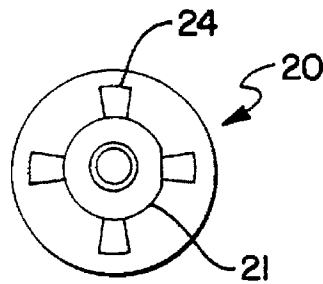


FIG. 6

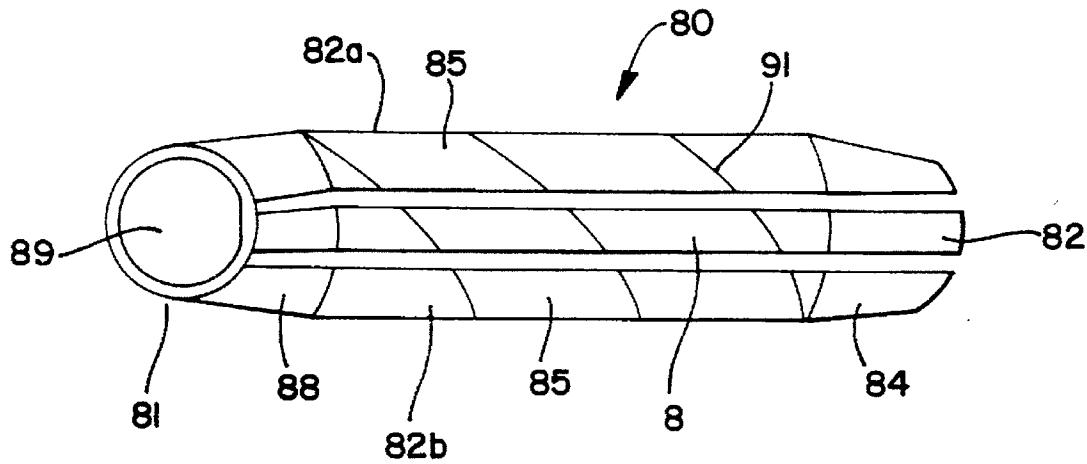


FIG. 8

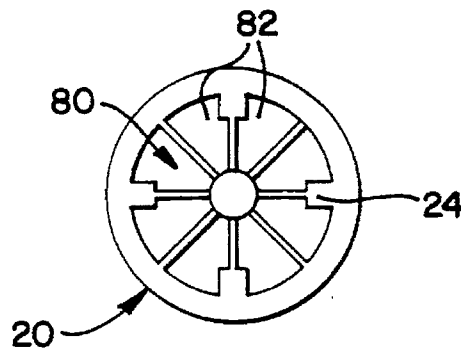
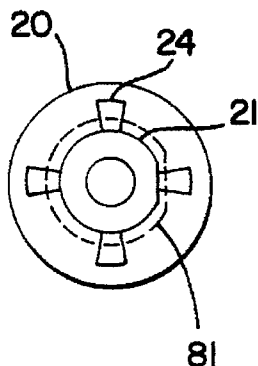


FIG. 7



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