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Globerman

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[54] **MEDICAL STENTS, APPARATUS AND METHOD FOR MAKING SAME**

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[75] **Inventor:** **Oren Globerman**, Holon, Israel

Primary Examiner—Michael Buiz

[73] **Assignee:** **Instent, Inc.**, Eden Prairie, Minn.

Assistant Examiner—Patrick W. Rasche

Attorney, Agent, or Firm—Levisohn, Lerner, Berger & Langsam

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[57] **ABSTRACT**

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[51] **Int. Cl.⁶** **A61M 29/00**

An expandable stent and stent graft having a small initial diameter, flexibility along its longitudinal axis prior to expansion and a large expanded and rigid Local strain on the stent material is minimized, as and after the balloon is expanded. More particularly, the stent has rotation joints having minimal strain during stent expansion. The stent is substantially the same length before and after expansion and being flexible longitudinally when constrained, it is easy to locate. A method of manufacturing stents is described comprising rotation of a tube beneath a moving film, with light passing through the film onto the tube, at selected locations. A laser scanning system for stent manufacture is also disclosed.

[52] **U.S. Cl.** **606/194; 606/192; 623/1**

[58] **Field of Search** 606/192, 194, 606/198, 191; 623/1, 12

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25 Claims, 12 Drawing Sheets

