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# United States Patent [19]

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Brenneman et al.

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[54] **RESORBABLE URETHRAL STENT AND APPARATUS FOR ITS INSERTION**

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[57] **ABSTRACT**

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[52] U.S. Cl. .... **606/198; 606/108; 623/12**

[58] Field of Search ..... 606/191, 198, 192, 193, 606/194, 200, 108; 623/1, 12; 604/8; 128/6

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A resorbable stent, particularly adapted for implantation in the penile urethra, comprises a helical coil formed from a filament of a biocompatible, biodegradable material that is resiliently deformable. The stent is compressible from a first diameter to a smaller second diameter, and restores itself substantially to its first diameter by its own resiliency when the compressing force is removed. Polymers of polylactic acid and polyglycolic acid are preferred materials. A device for inserting the stent has a first embodiment that includes a retractable sheath surrounding a rotatable rod journaled in a stationary bushing. The stent is mounted on the rod and the bushing so that relative rotation of the rod and bushing compresses the stent by coiling it more tightly. The sheath is inserted into the urethra with the stent compressed inside of it, and the retracted. The rod and bushing are then relatively rotated so as to uncoil the stent, which is restored to its first diameter. A shearing sleeve is actuated to detach the stent from the rod and the bushing. A second embodiment includes a plunger on which the stent is detachably mounted. The plunger is inserted through the sheath, thereby compressing the stent. When the stent is discharged through the distal end of the sheath into the urethra, the stent resiliently restores itself to its first diameter.

**41 Claims, 3 Drawing Sheets**

