

# (12) United States Patent

### Spenser et al.

#### (54) METHOD OF CRIMPING A PROSTHETIC VALVE

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- 72/416, 452.1, 452.8, 31.06, 31.01, 18.6, 72/452.9, 482.1, 465.1, 466.8; 33/555.1-555.4 See application file for complete search history.

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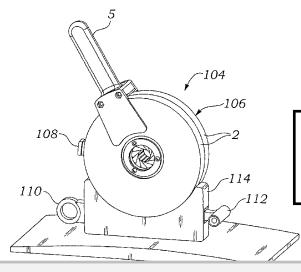
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#### (57)ABSTRACT

An improved crimping mechanism and method well-suited for use with stented prosthetic heart valves. The crimping mechanism includes a plurality of jaws configured for linear non-rotational movement toward a central axis. A rotational plate is formed with a plurality of spiral grooves or tracks for engaging the jaws. Rotational movement of the spiral tracks produces linear movement of the jaws. Nesting of the inner ends of the jaws permits each to be acted on along different radial lines while their inner faces move together evenly to reduce the crimping aperture in a smooth fashion. The crimping mechanism is particularly well-suited for use with stented prosthetic heart valves, such as a prosthetic aortic valve, though it can also be applied to other stented heart valves, venous valves, and even stent grafts which tend to be fairly

#### 16 Claims, 15 Drawing Sheets



**Edwards Lifesciences v. Boston Scientific** U.S. Patent No. 6,915,560 IPR2017-00444 EX. 2036



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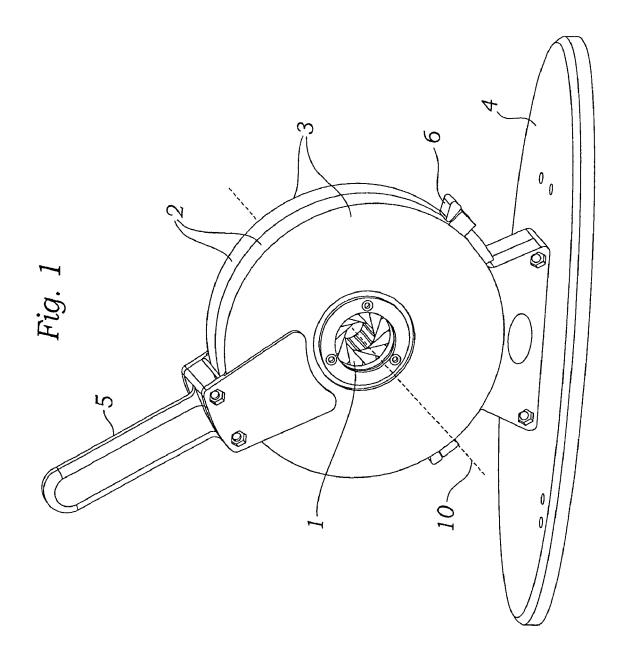
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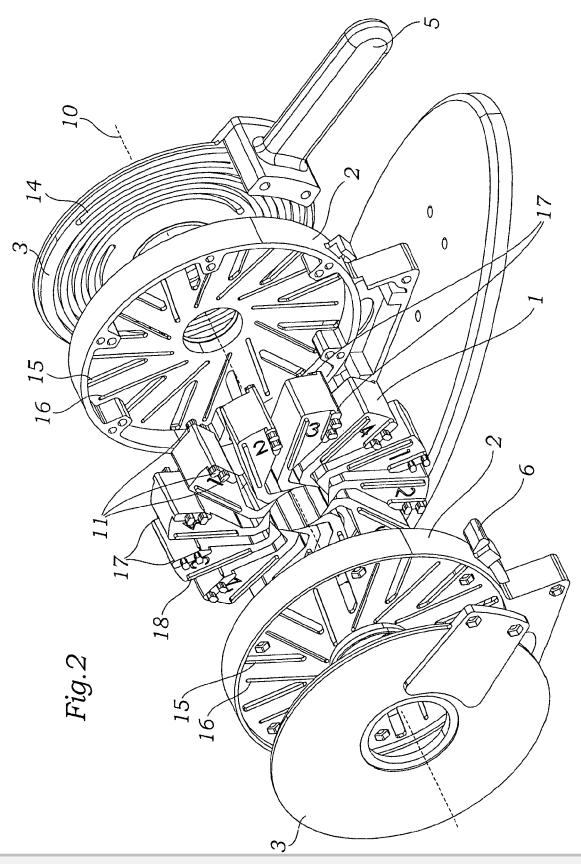
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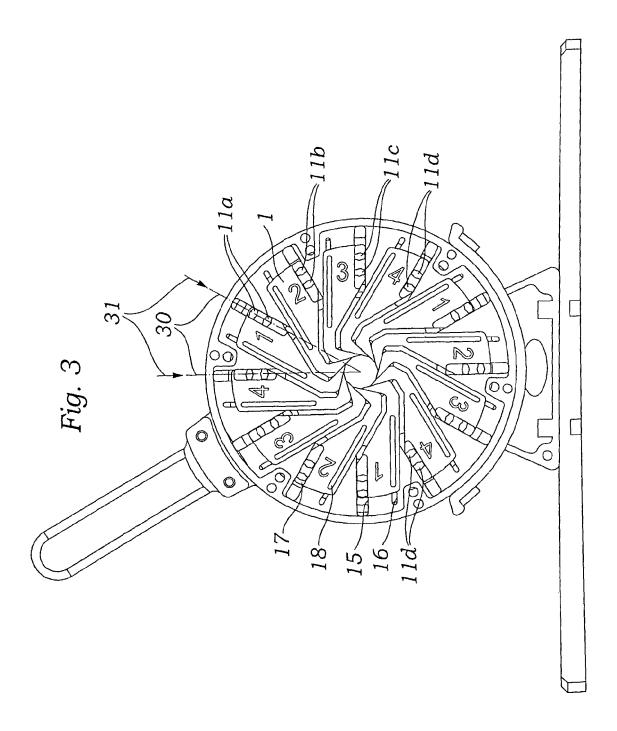














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