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Spenser et al.

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

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patent is extended or adjusted under 35
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(51) **Int. Cl.**
B21D 41/04 (2006.01)
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(52) **U.S. Cl.** **72/402; 72/482.1; 72/18.6**

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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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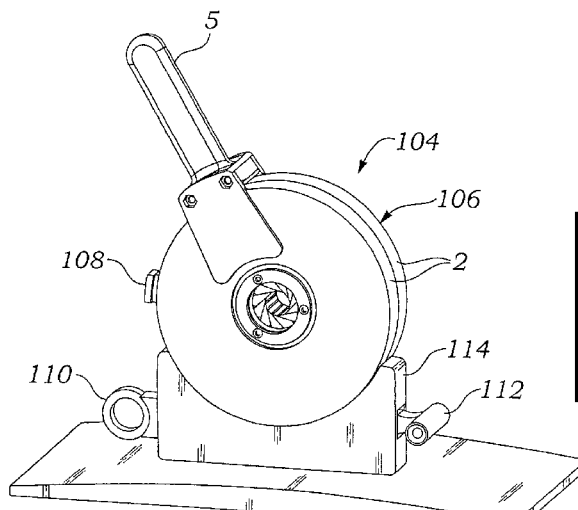
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(57) **ABSTRACT**

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 large.

16 Claims, 15 Drawing Sheets



**Edwards Lifesciences v. Boston
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U.S. Patent No. 6,915,560
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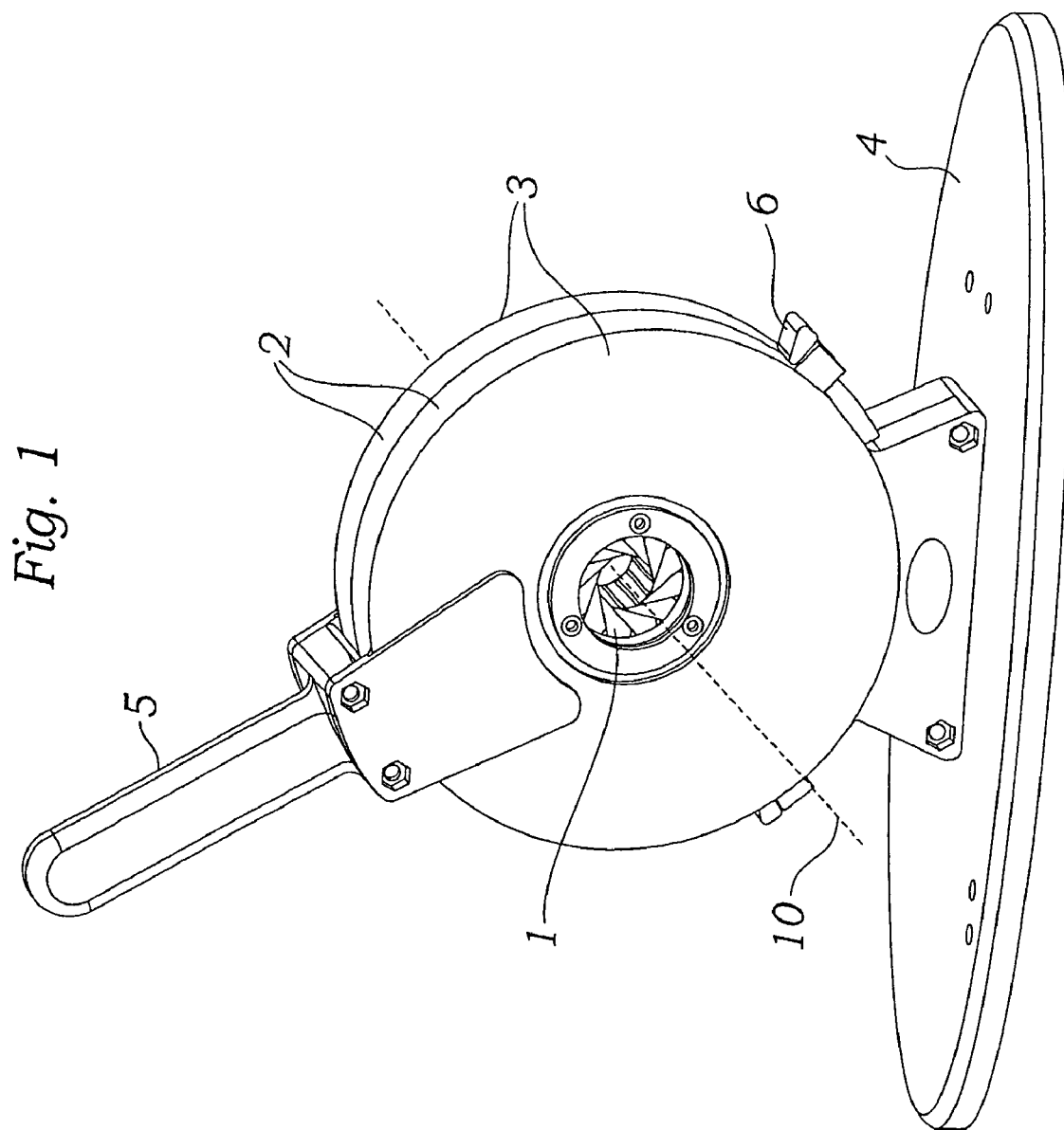
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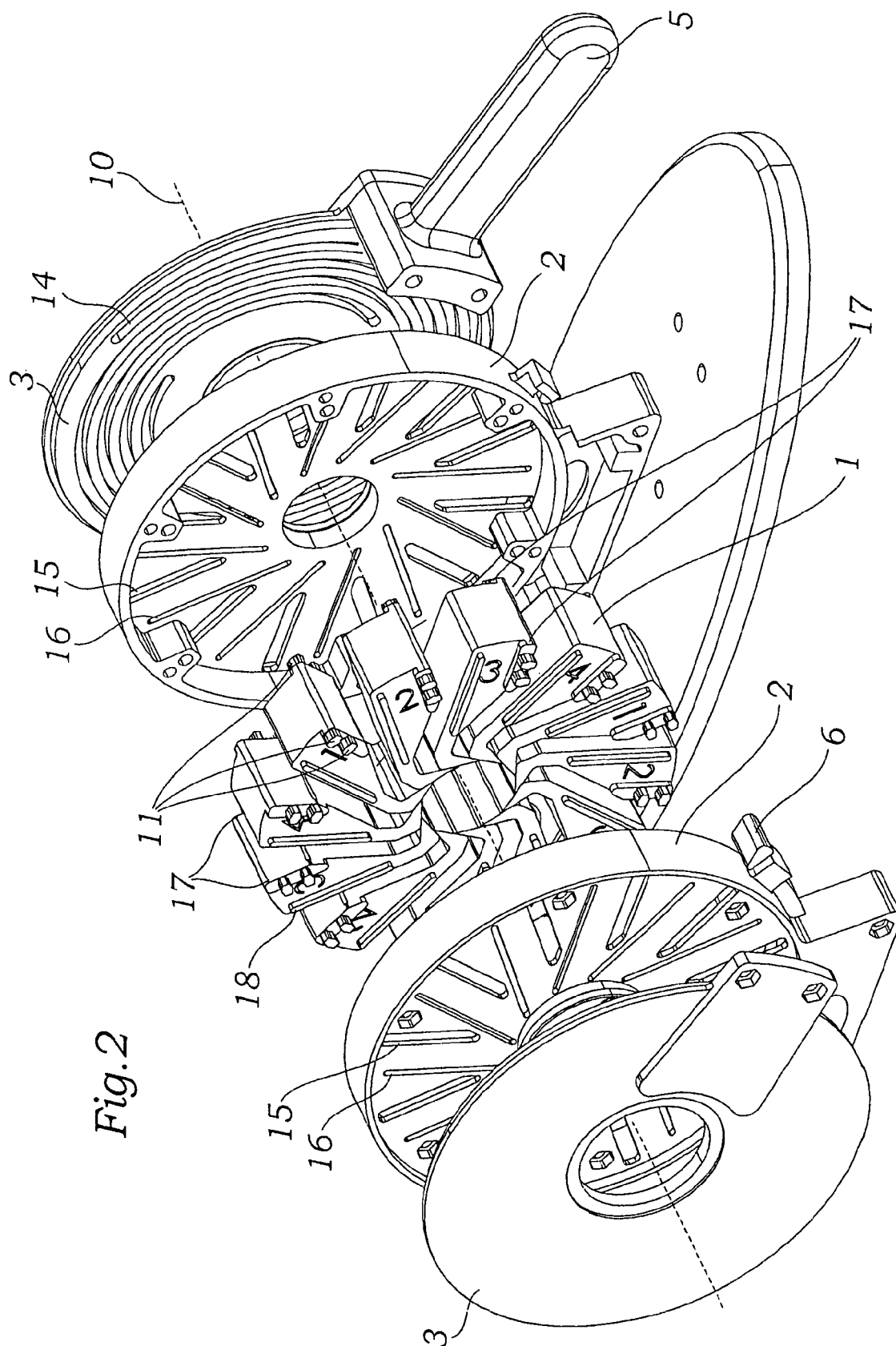
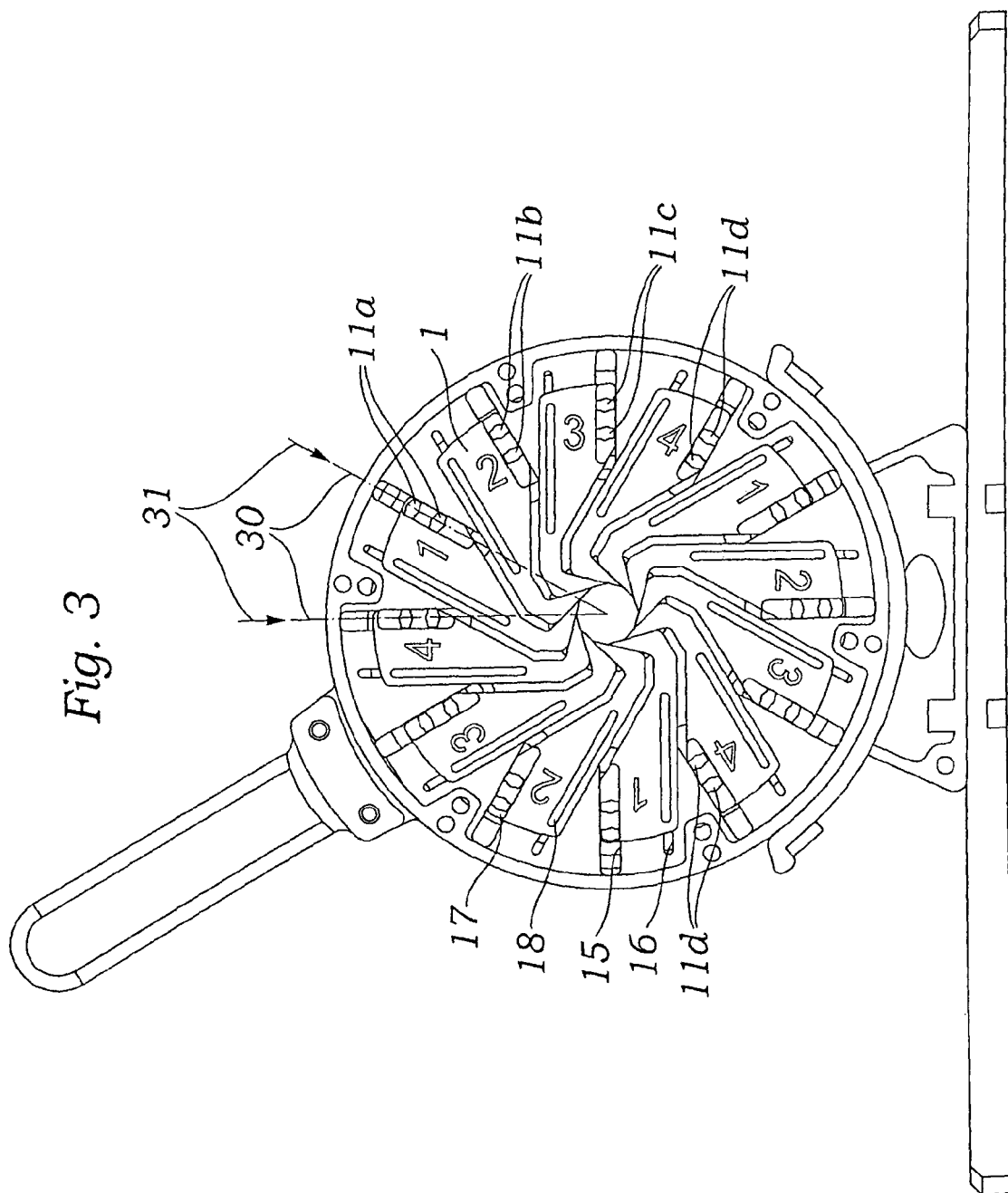


Fig. 2





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