



US005514180A

# United States Patent [19]

[11] Patent Number: **5,514,180**

Heggeness et al.

[45] Date of Patent: **May 7, 1996**

[54] **PROSTHETIC INTERVERTEBRAL DEVICES**

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[21] Appl. No.: **182,294**

[22] Filed: **Jan. 14, 1994**

[51] Int. Cl.<sup>6</sup> ..... **A61F 2/44**

[52] U.S. Cl. .... **623/17; 606/60; 606/61**

[58] Field of Search ..... 623/16, 17, 18;  
606/60, 61, 62, 69, 72

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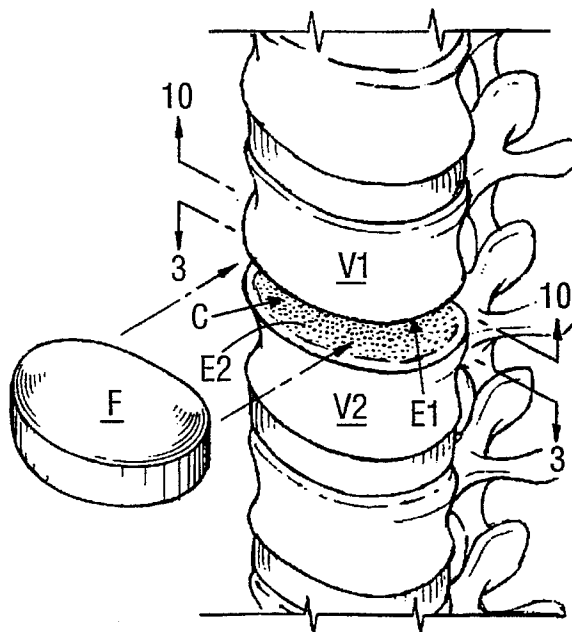
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*Attorney, Agent, or Firm*—Laura G. Barrow

[57] **ABSTRACT**

Disclosed are prosthetic devices for insertion into intervertebral disc spaces after the removal of an intervertebral disc or after a corpectomy. Specifically, intervertebral devices having fixed shapes for accommodating the defined surface contours of vertebral endplates are disclosed. Also disclosed are intervertebral devices formed of osteoinductive materials, such as bone growth factors, to facilitate bone growth. A method for quantitatively determining the three-dimensional morphology of vertebral surfaces, particularly vertebral endplates, is also disclosed.

**36 Claims, 15 Drawing Sheets**



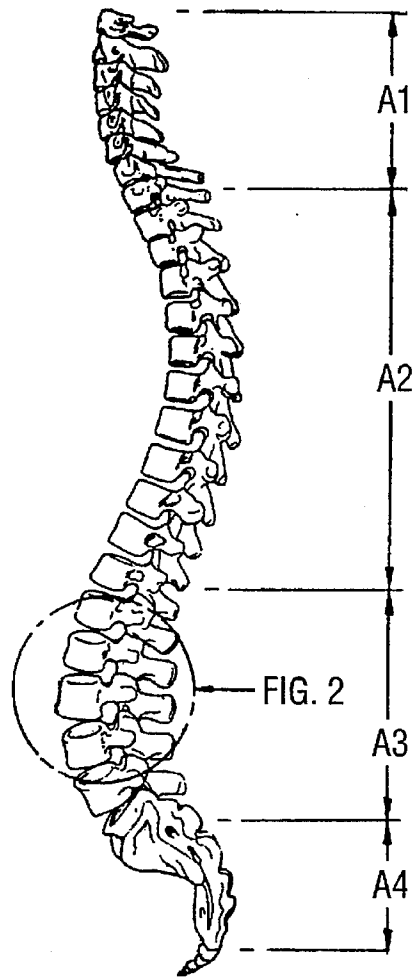


FIG. 1

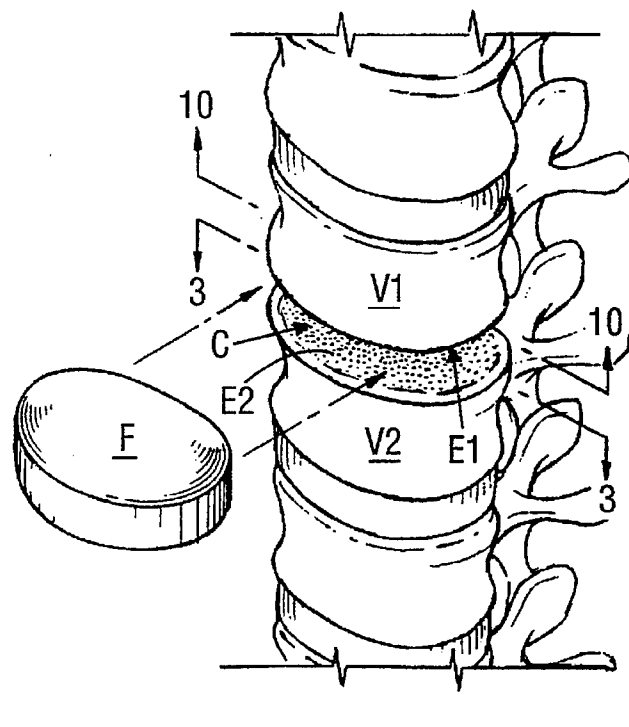


FIG. 2

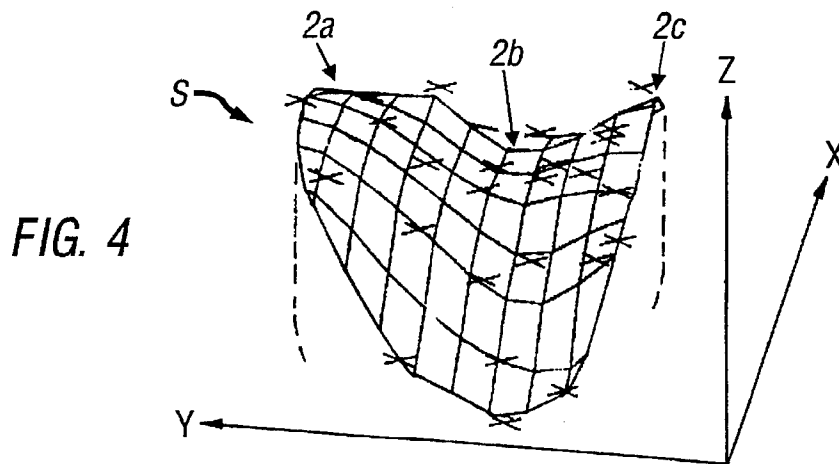
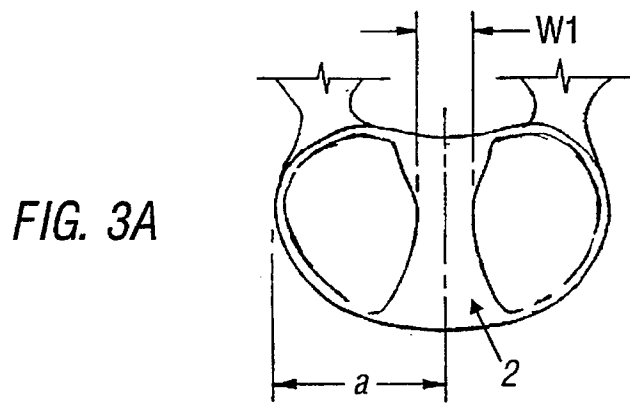
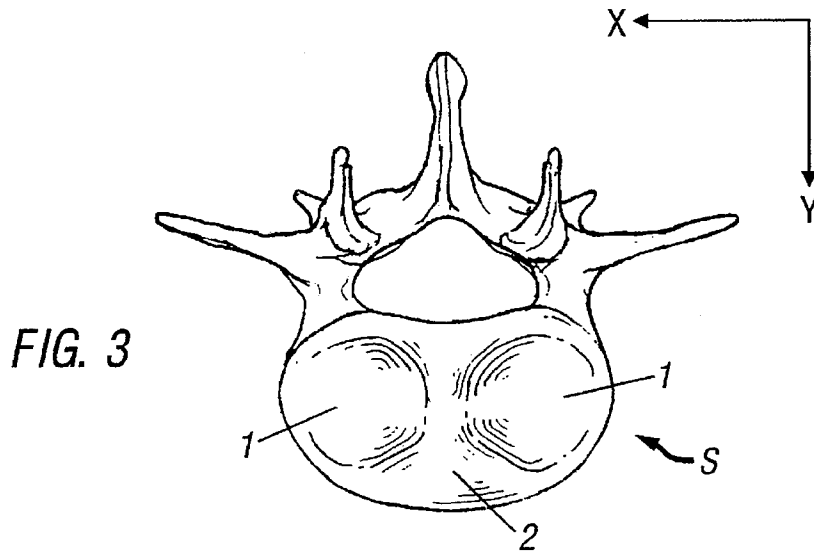


FIG. 5

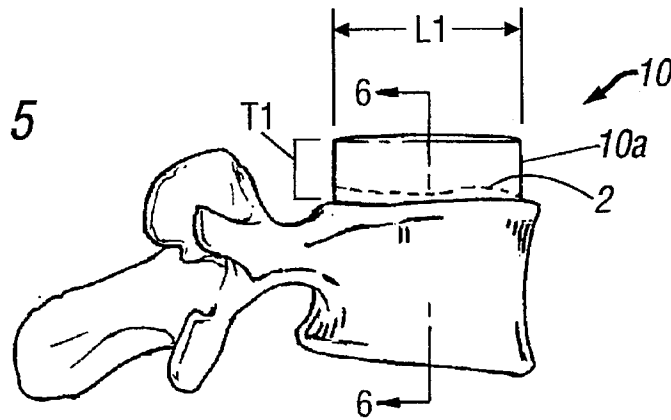


FIG. 6

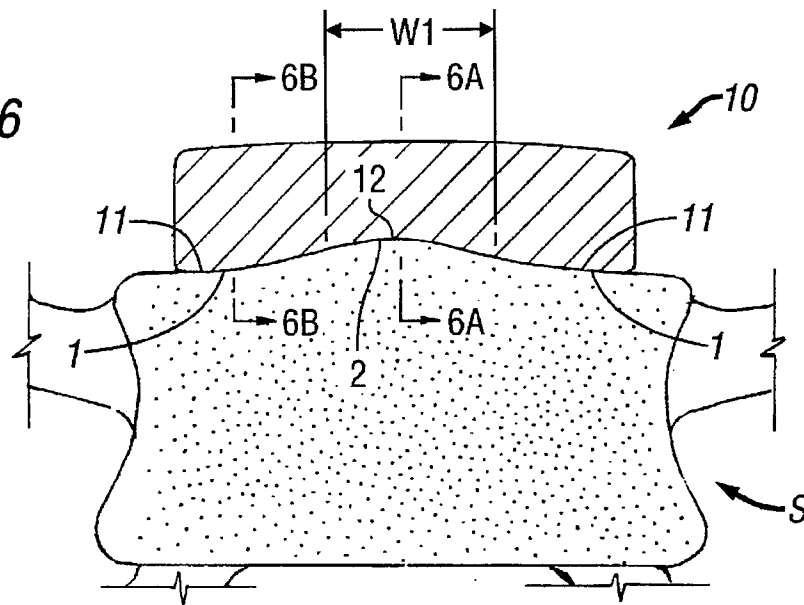


FIG. 6A

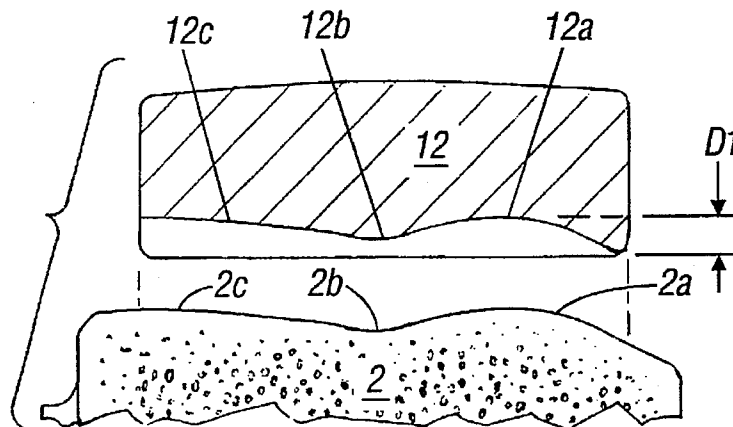


FIG. 6B

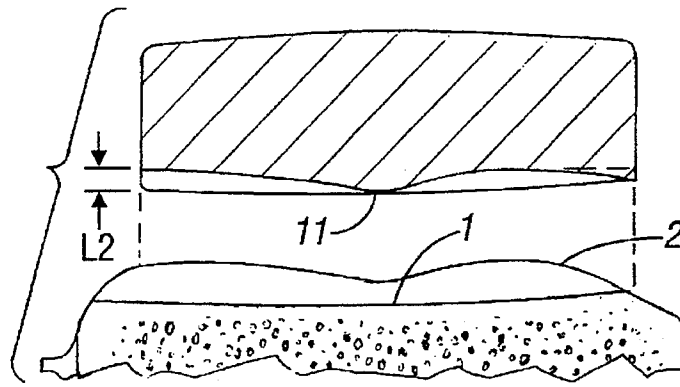


FIG. 7

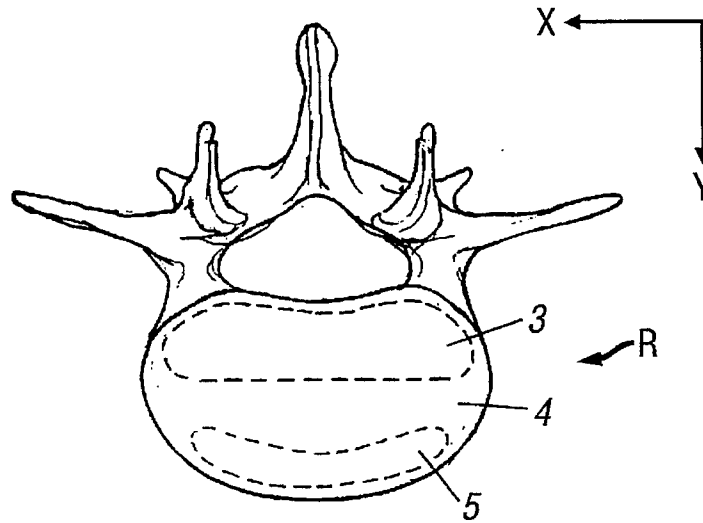
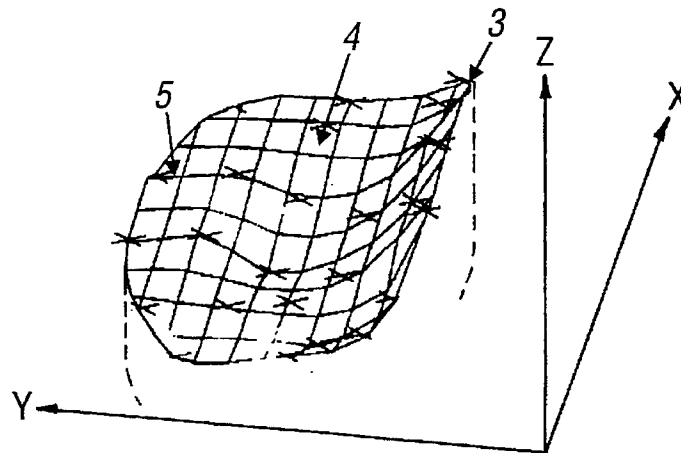


FIG. 8



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