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(54) **DEVICE FOR CORRECTING SPINAL DEFORMITIES**

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See application file for complete search history.

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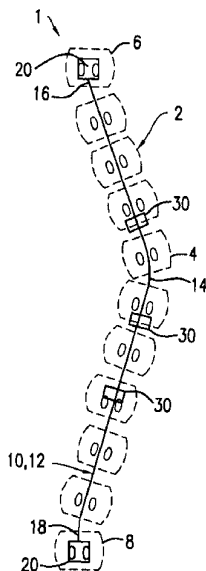
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(57) **ABSTRACT**

The present invention relates generally to a device of and a method for correcting spinal deformities, such as scoliosis and kyphosis. The invention employs the superelasticity or pseudoelasticity, such as found in a nickel-titanium alloy, to provide a continuous, predictable, and controllable correction force and to achieve a gradual and full correction. The correction force can be exerted on the deformed spine either at the time of the spine surgery or after the surgery or both, to afford a full or substantially full correction. The continuous and controllable correction force of the present invention is safer than an instantaneous and large correction force applied only at the time of surgery. Additionally, the continuous and controllable correction force is capable of gradually and fully correcting the spinal deformities without any post-operative manipulation of the correction device or re-operation.

**25 Claims, 7 Drawing Sheets**



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