



(12) **United States Patent**
Suver

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(54) **APPARATUS AND METHODS FOR THE PLACEMENT OF PIPE PILING**

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See application file for complete search history.

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(57) **ABSTRACT**

Apparatus and methods for the installation of pipe pilings into the ground for use as structural building foundations, geothermal piles, or both, are disclosed. In addition to specialized fittings for pipe pile assemblies, the inventions include specialized drive mechanisms used in conjunction with rotary or vibratory motors. Methods of installing pipe pilings are further improved with the disclosure of methods of adding grout or similar materials during or after installation of the piles.

15 Claims, 8 Drawing Sheets

