

(12) **United States Patent**
Ghiron et al.

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(54) **FERROFLUIDIC COOLING AND
ACOUSTICAL NOISE REDUCTION IN
MAGNETIC STIMULATORS**

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(52) **U.S. Cl.** **600/13**

(58) **Field of Classification Search** 600/9-15;
125/897-899

See application file for complete search history.

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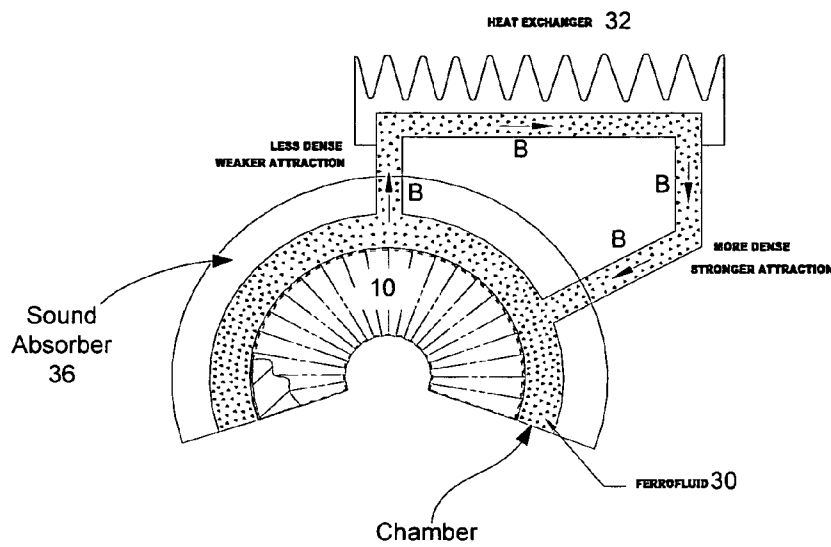
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(57) **ABSTRACT**

A ferrofluid chamber has a housing that is adapted to be coupled to a component that generates a magnetic field of sufficient strength to stimulate anatomical tissue. In addition, a ferrofluid is disposed within the housing for cooling the component.

30 Claims, 6 Drawing Sheets



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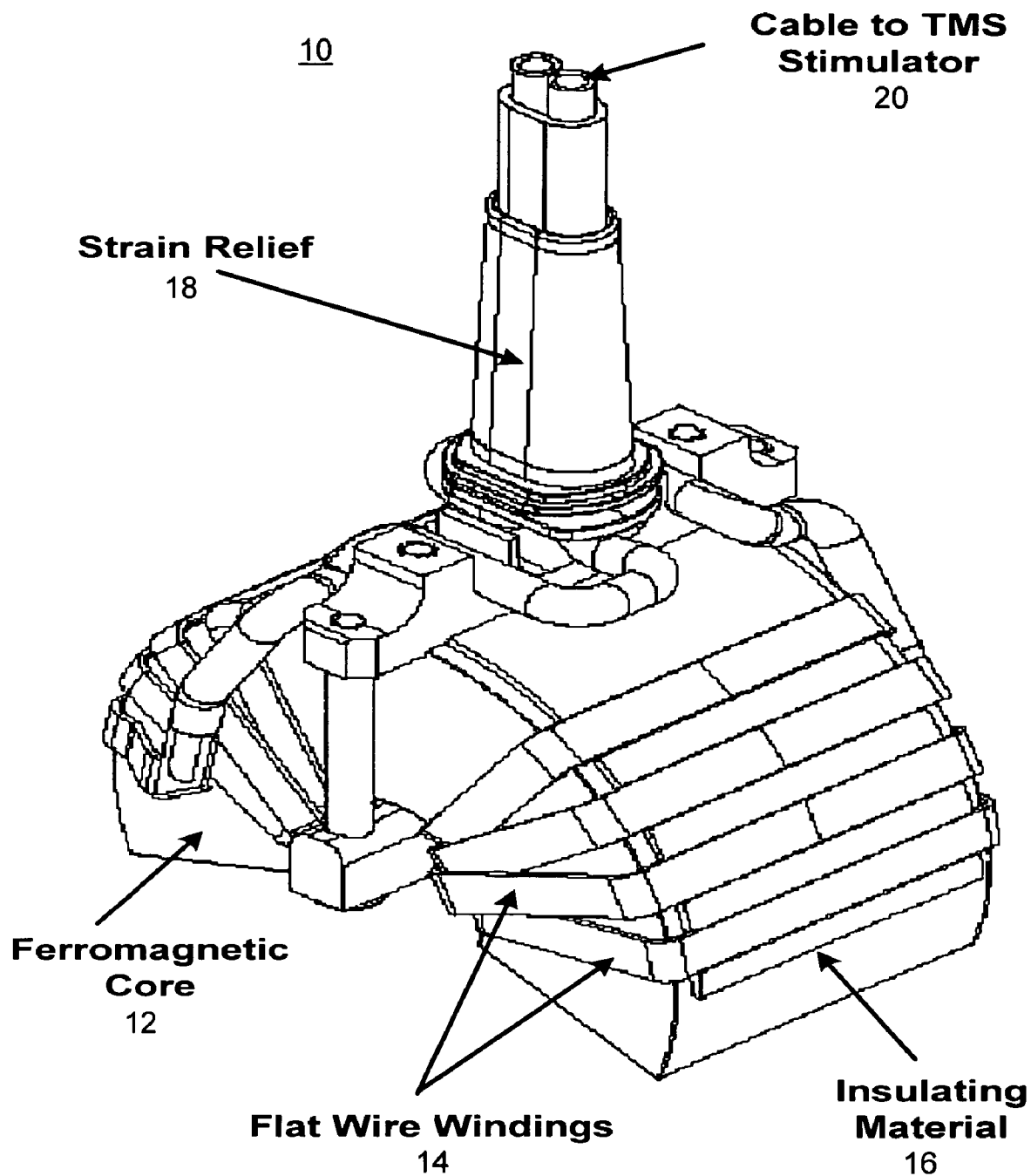
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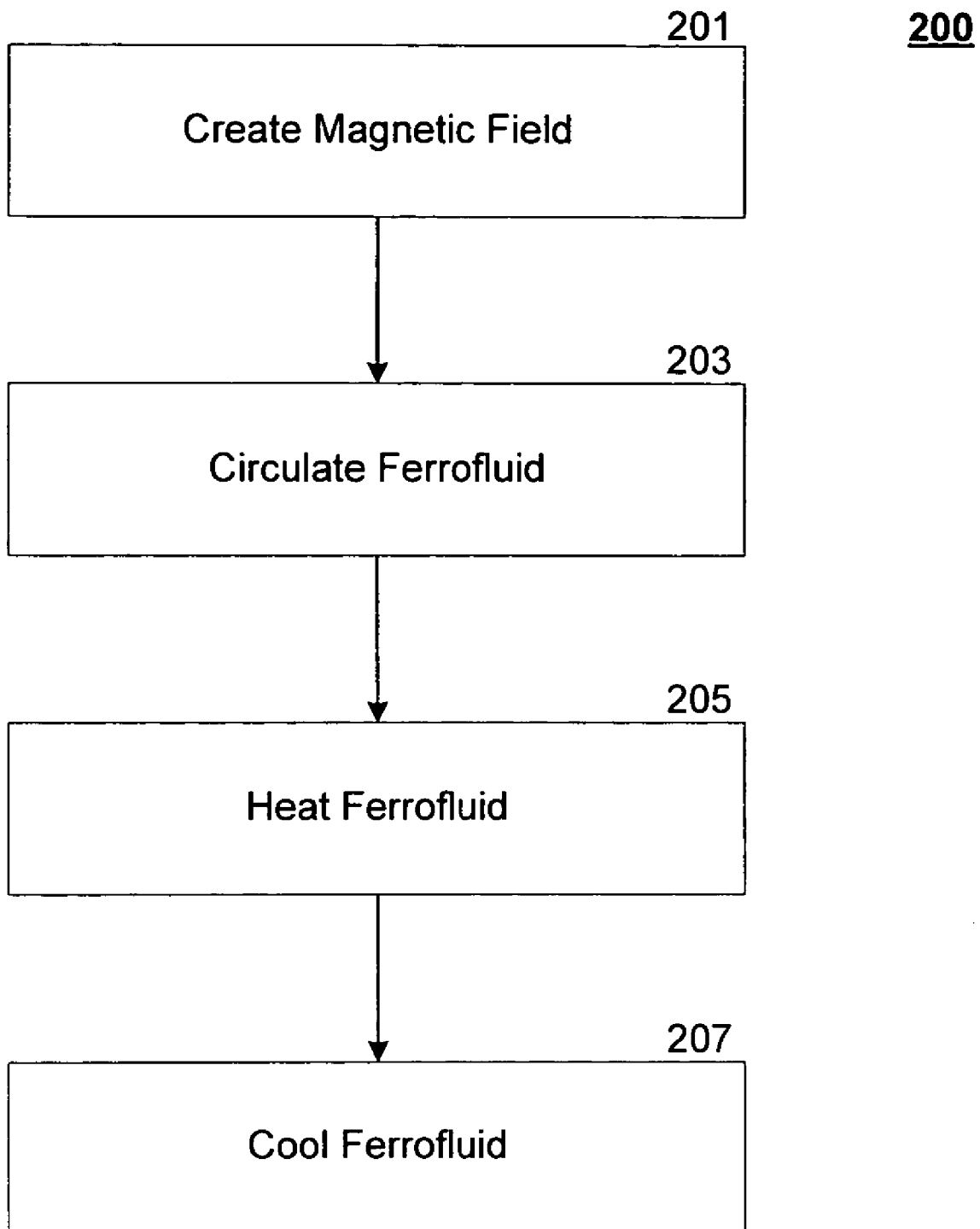
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**Figure 1**

**Fiaure 2**

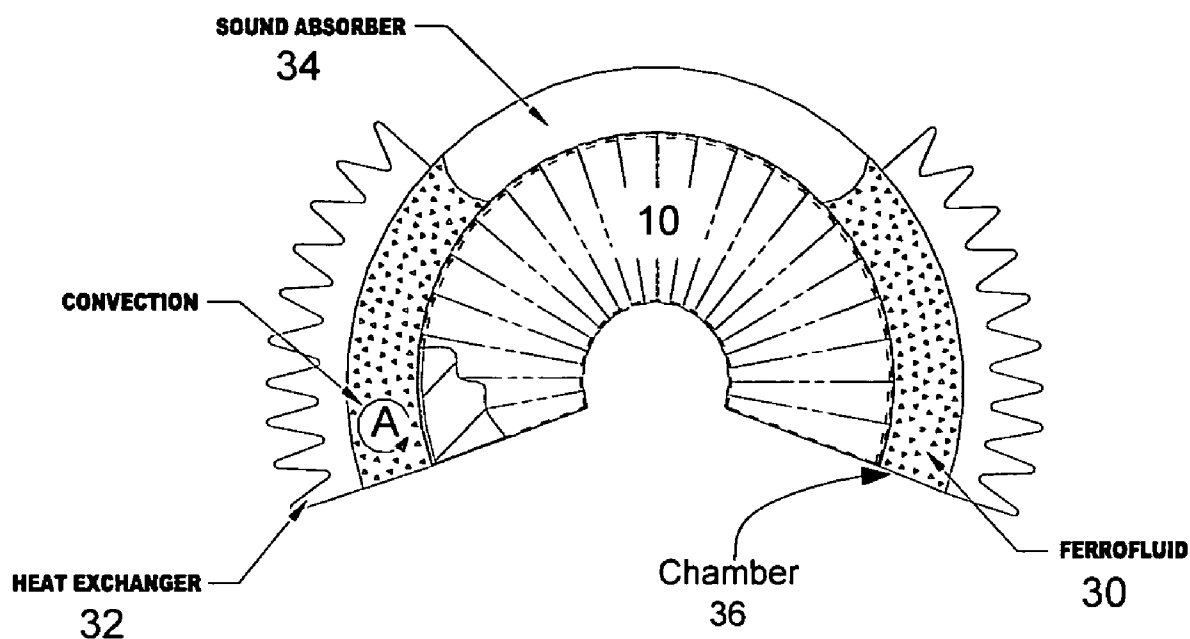


Figure 3

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