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(54) **ZIG-ZAG SHAPE BIASED ANISOTROPIC MAGNETORESISTIVE SENSOR**

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G11B 5/33 (2006.01)

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(58) **Field of Classification Search** ..... None
See application file for complete search history.

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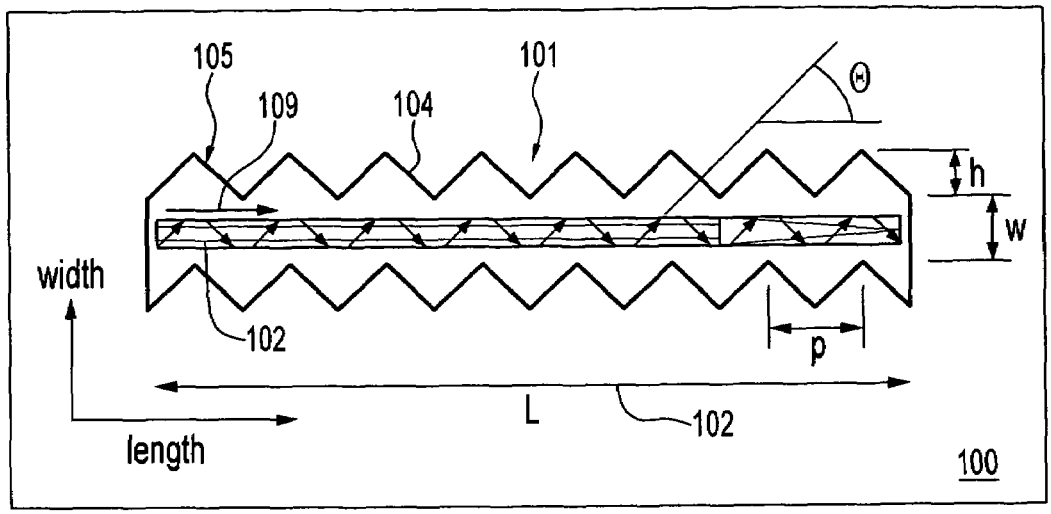
(57) **ABSTRACT**

A magnetoresistive sensing apparatus is disclosed, comprising a magnetic film having a zig-zag shaped structure, a central axis, and a magnetization associated with the magnetic film, wherein the zig-zag shaped structure biases the magnetization direction alternately at positive and negative angles thereof, thereby permitting the magnetoresistive sensing apparatus to be sensitive to a magnetic field parallel to the axis of the magnetoresistive sensing apparatus and insensitive to magnetic fields perpendicular to the axis.

20 Claims, 2 Drawing Sheets