

# EXHIBIT B

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

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(45) **Date of Patent:** **\*Nov. 15, 2016**

(54) **BUTTON CELLS AND METHOD OF PRODUCING SAME**

(58) **Field of Classification Search**  
CPC .. H01M 2/0222; H01M 2/0207; H01M 4/70; H01M 4/76  
USPC ..... 429/94, 162, 164, 171, 172  
See application file for complete search history.

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(73) Assignee: **Varta Microbattery GmbH** (DE)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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**Related U.S. Application Data**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**

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**H01M 6/10** (2006.01)

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(52) **U.S. Cl.**

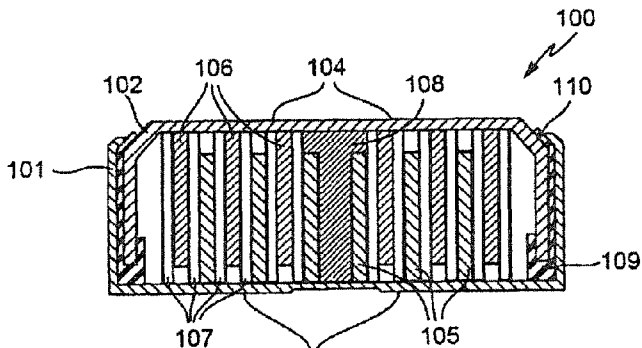
CPC ..... **H01M 10/0431** (2013.01); **H01M 2/0222** (2013.01); **H01M 6/10** (2013.01);

(Continued)

(57) **ABSTRACT**

A button cell includes a housing cup and a housing top separated from one another by an insulating seal and which form a housing with a flat bottom and a flat top parallel to it, and an electrode-separator assembly within the housing including flat layer positive and negative electrodes and connected to one another by a flat separator, wherein the layers are aligned essentially at right angles to the flat bottom and the flat top and the electrode-separator assembly is a spiral winding having end faces defining side surfaces of the spiral winding facing in an axial direction relative to the flat bottom and the flat top, and one of the electrodes connects to the flat bottom or the flat top via an output conductor including a thin film resting flat between an end face of the spiral winding and the flat top or the flat bottom.

**13 Claims, 3 Drawing Sheets**



**US 9,496,581 B2**

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- (52) **U.S. Cl.**  
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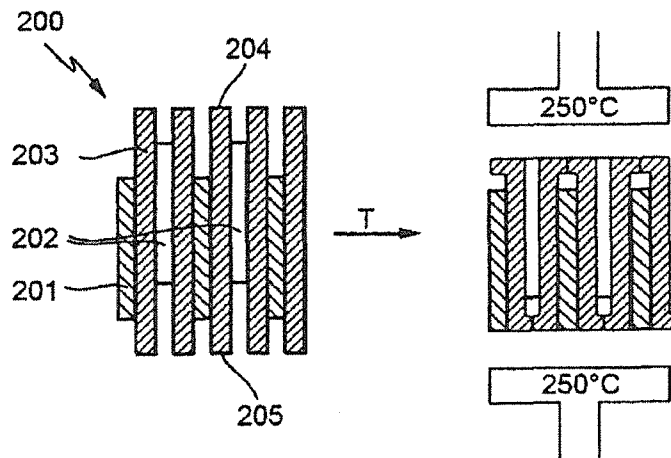
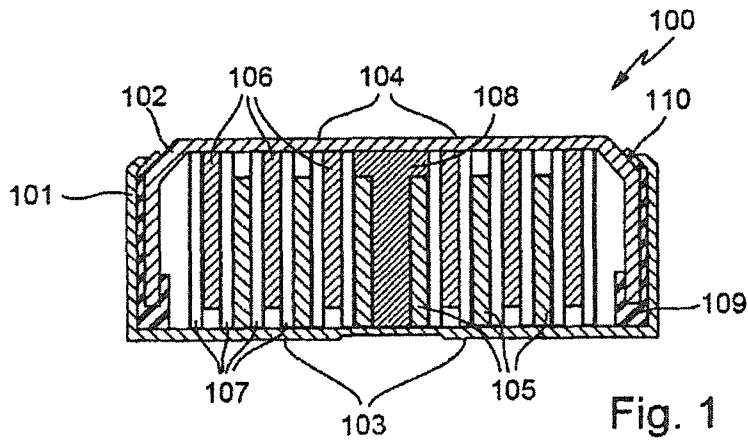


Fig. 2

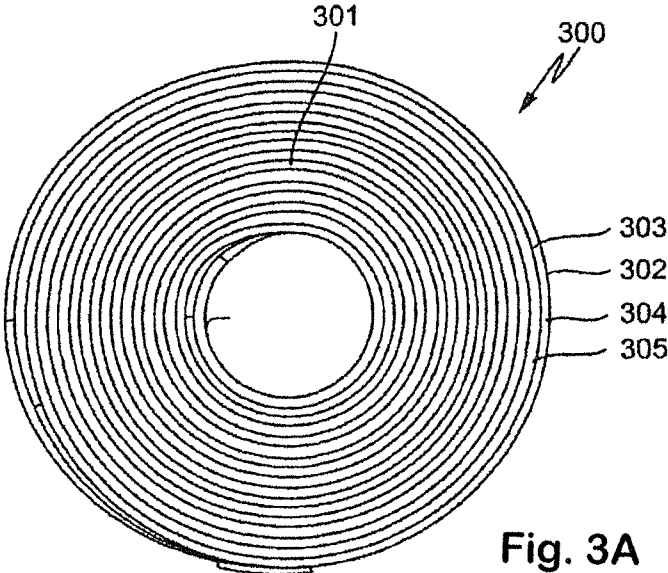


Fig. 3A

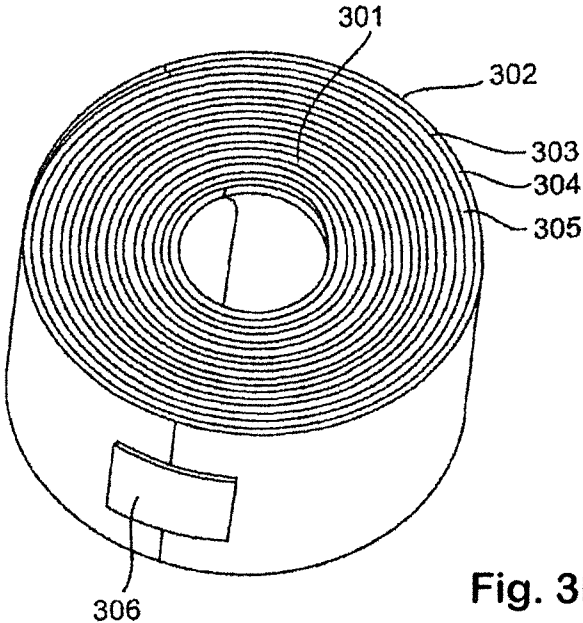


Fig. 3B

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