

EXHIBIT B

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

(10) **Patent No.:** **US 9,496,581 B2**
(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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(21) Appl. No.: **14/827,387**

(22) Filed: **Aug. 17, 2015**

(65) **Prior Publication Data**

US 2015/0372339 A1 Dec. 24, 2015

Related U.S. Application Data

(62) Division of application No. 13/146,669, filed as application No. PCT/EP2010/000787 on Feb. 9, 2010, now Pat. No. 9,153,835.

(30) **Foreign Application Priority Data**

Feb. 9, 2009 (DE) 10 2009 008 859
Jun. 18, 2009 (DE) 10 2009 030 359
Dec. 22, 2009 (DE) 10 2009 060 788

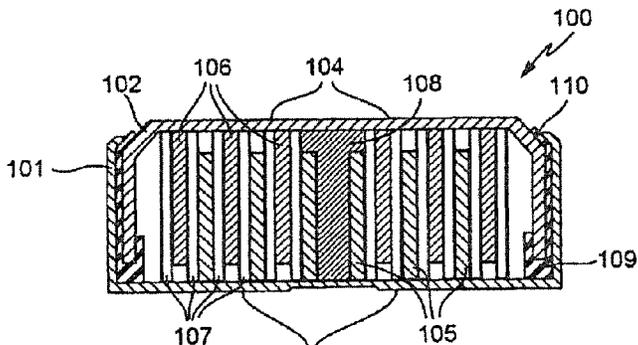
(57) **ABSTRACT**

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.

(51) **Int. Cl.**
H01M 4/00 (2006.01)
H01M 6/10 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC **H01M 10/0431** (2013.01); **H01M 2/0222** (2013.01); **H01M 6/10** (2013.01);
(Continued)

13 Claims, 3 Drawing Sheets



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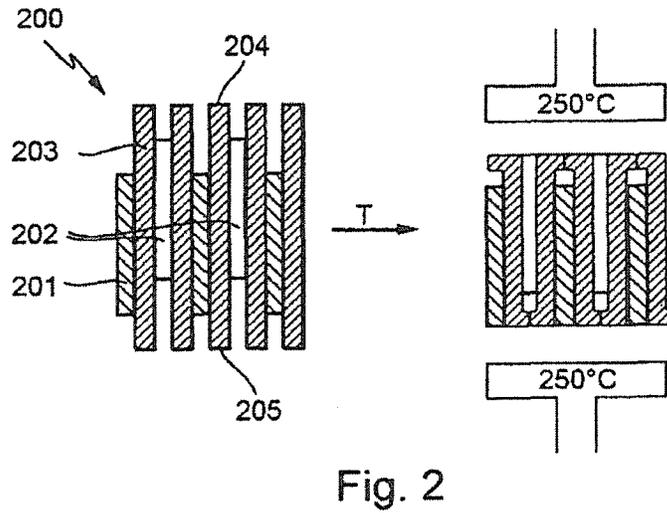
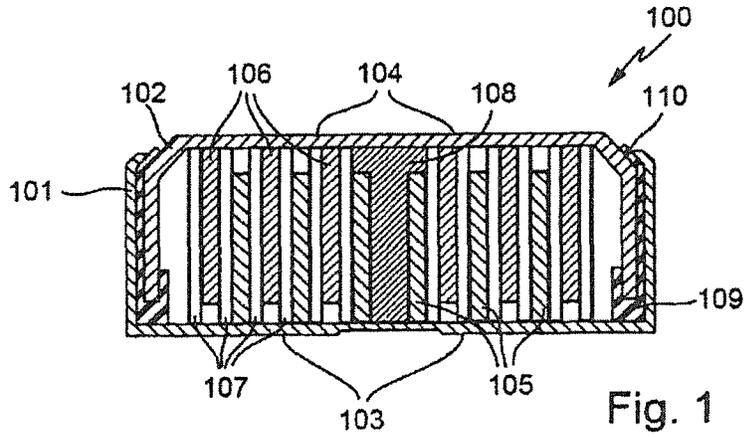
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| (51) | <p>Int. Cl.
 <i>H01M 6/12</i> (2006.01)
 <i>H01M 6/46</i> (2006.01)
 <i>H01M 2/02</i> (2006.01)
 <i>H01M 6/08</i> (2006.01)
 <i>H01M 10/04</i> (2006.01)
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- (52) **U.S. Cl.**
 CPC *H01M10/0427* (2013.01); *H01M 10/05* (2013.01); *H01M 10/24* (2013.01); *H01M 10/34* (2013.01); *Y02E 60/124* (2013.01); *Y02P 70/54* (2015.11); *Y10T 29/4911* (2015.01); *Y10T 29/49108* (2015.01)

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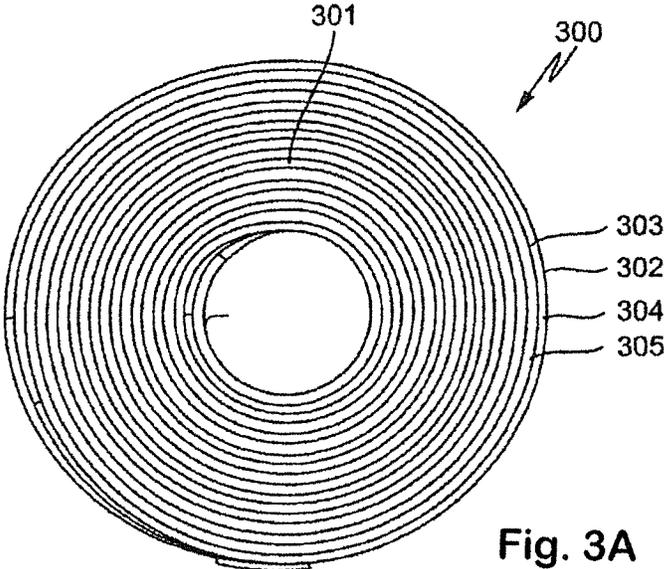


Fig. 3A

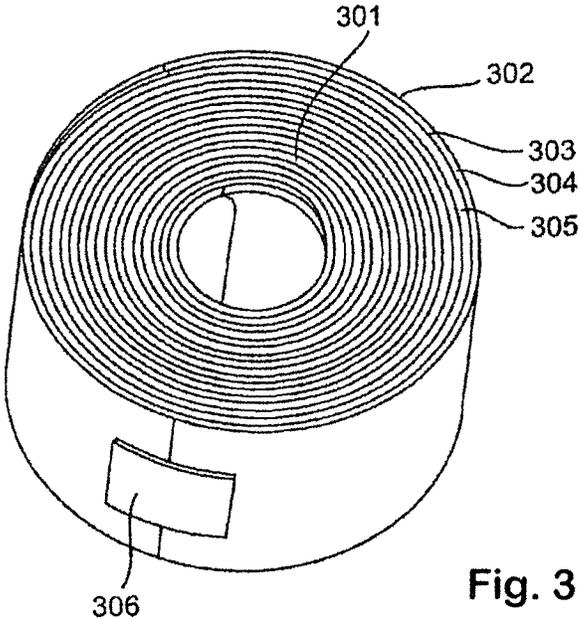


Fig. 3B

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