



US 20050233212A1

(19) **United States**

(12) **Patent Application Publication**

Kaun

(10) **Pub. No.: US 2005/0233212 A1**

(43) **Pub. Date: Oct. 20, 2005**

(54) **HOUSING FOR ELECTROCHEMICAL DEVICES**

(52) **U.S. Cl. 429/176; 429/53; 429/185; 429/175**

(76) **Inventor: Thomas D. Kaun, New Lenox, IL (US)**

Correspondence Address:
FOLEY & LARDNER
321 NORTH CLARK STREET
SUITE 2800
CHICAGO, IL 60610-4764 (US)

(57) **ABSTRACT**

An improved housing for a rolled-ribbon electrochemical device is provided. The housing comprises a fastener that aligns first and second cups during assembly and maintains electrode contact independent of external pressure on the housing eliminating the possibility of an open circuit state for a cell. In one alternative embodiment, the fastener comprises a stem that fits into a hollow tube and resists detachment from the tube. In another alternative embodiment, the fastener comprises a stem that fits into a grommet and resists detachment from the grommet. In yet another alternative embodiment, the fastener comprises a tube that fits into a grommet and resists detachment from the grommet.

(21) **Appl. No.: 11/104,363**

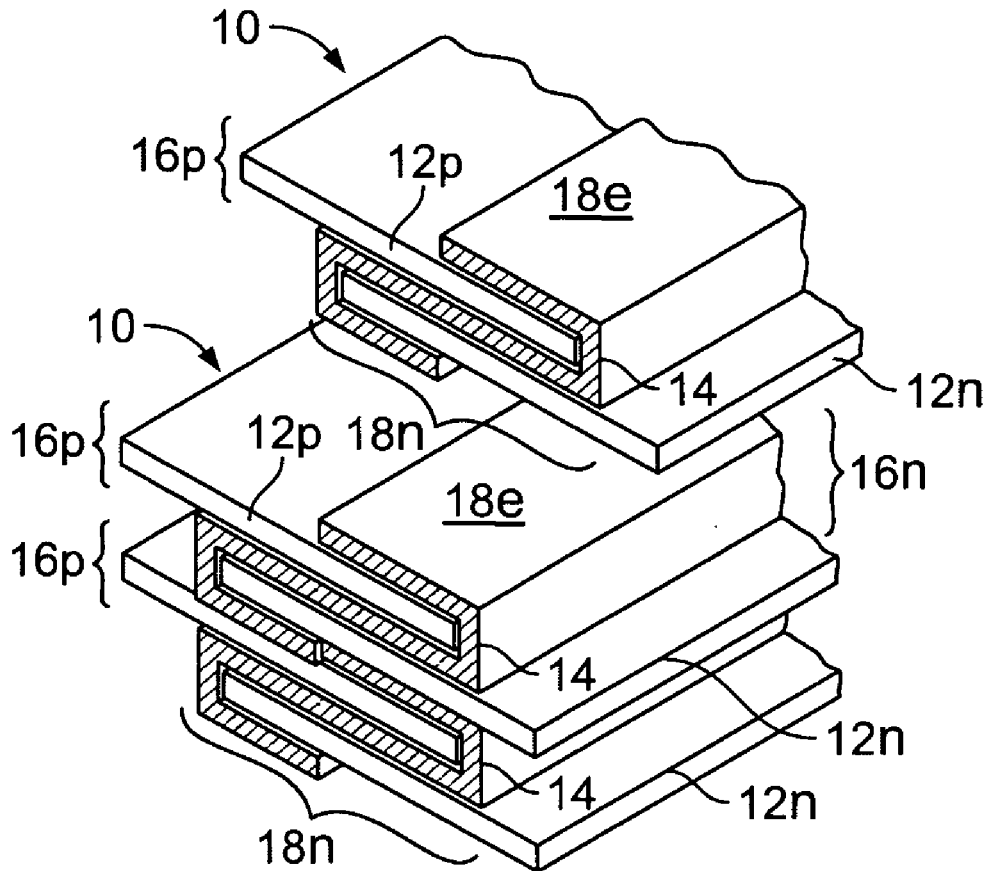
(22) **Filed: Apr. 12, 2005**

Related U.S. Application Data

(60) **Provisional application No. 60/562,157, filed on Apr. 14, 2004.**

Publication Classification

(51) **Int. Cl.⁷ H01M 2/02; H01M 2/12; H01M 2/08; H01M 2/04**



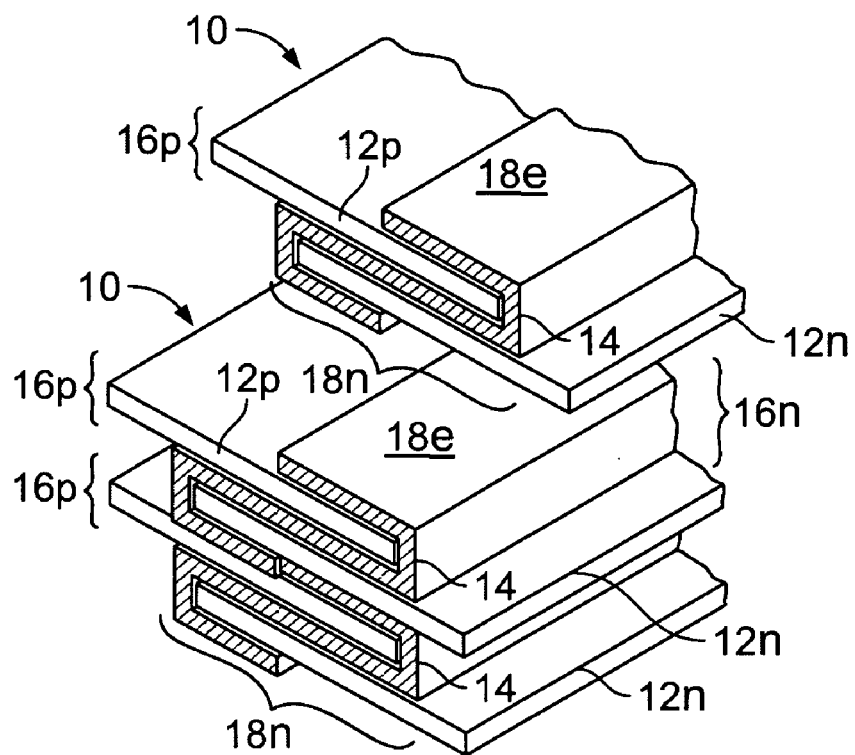


FIG. 1

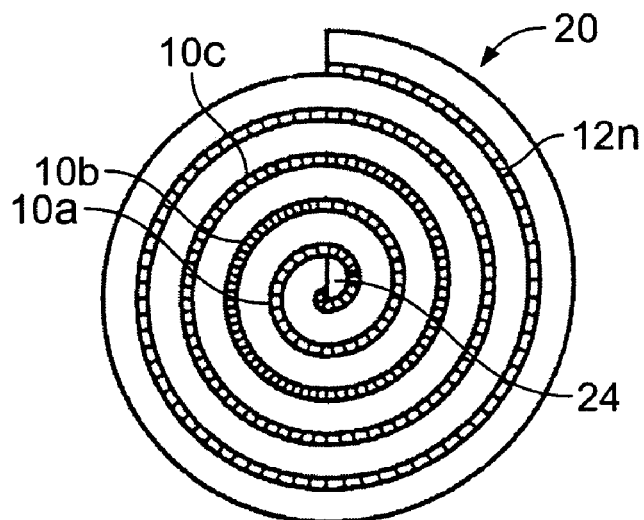


FIG. 2

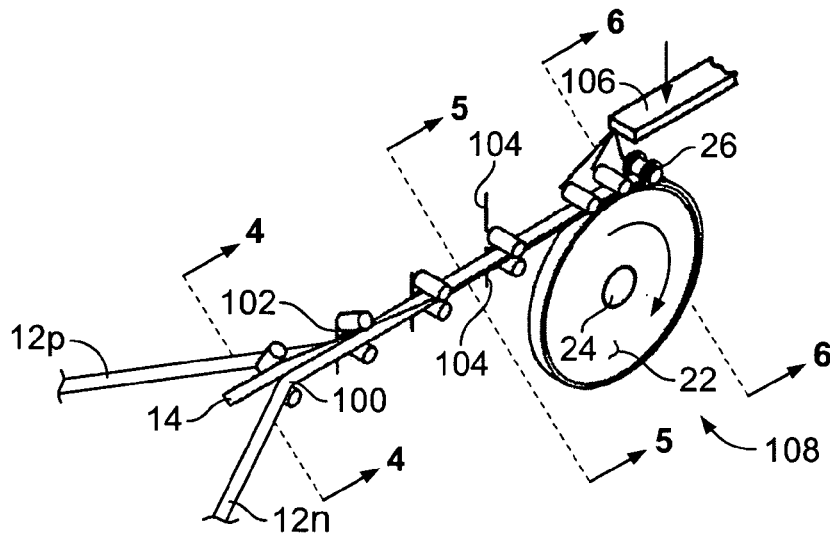


FIG. 3

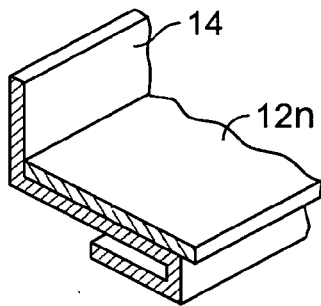


FIG. 4

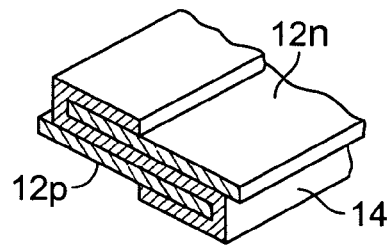


FIG. 5

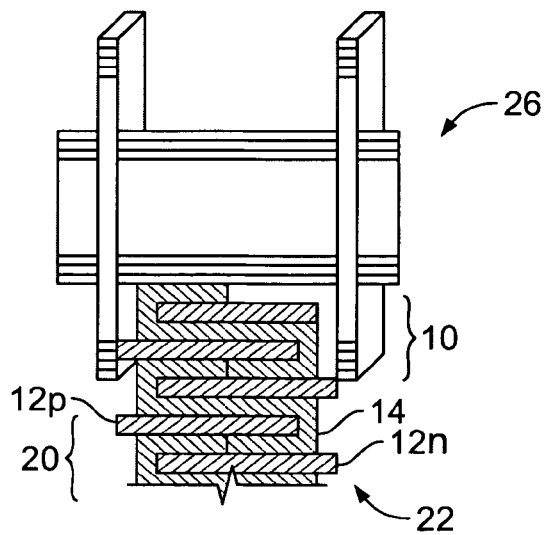


FIG. 6

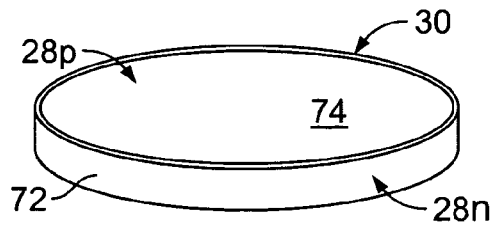


FIG. 7A

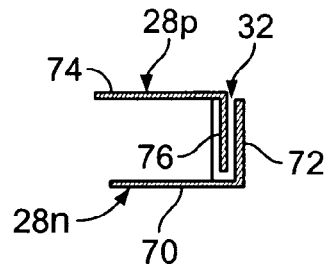


FIG. 7B

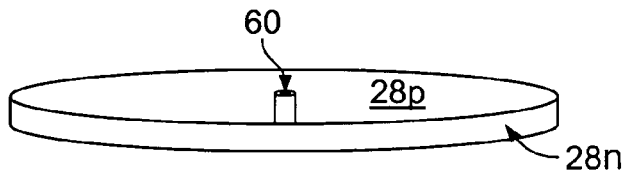


FIG. 7C

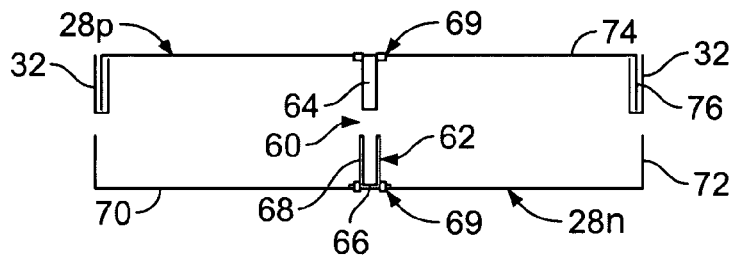


FIG. 7D

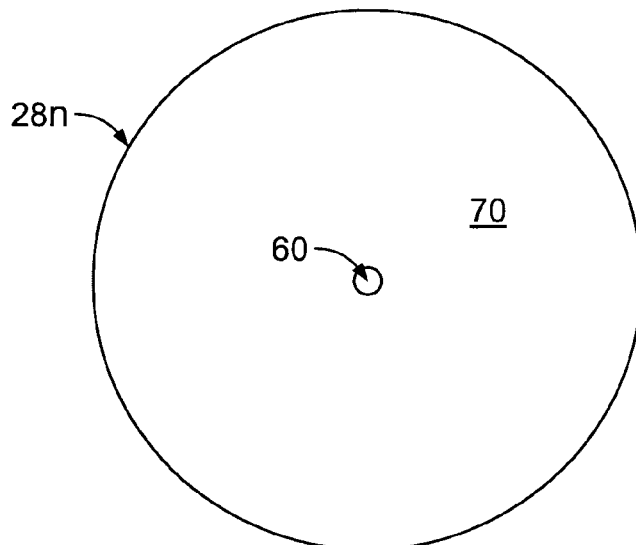


FIG. 8

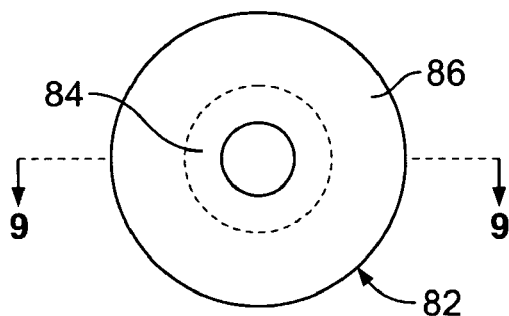


FIG. 9A

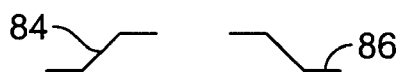


FIG. 9B

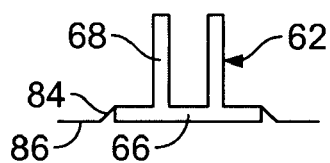


FIG. 9C

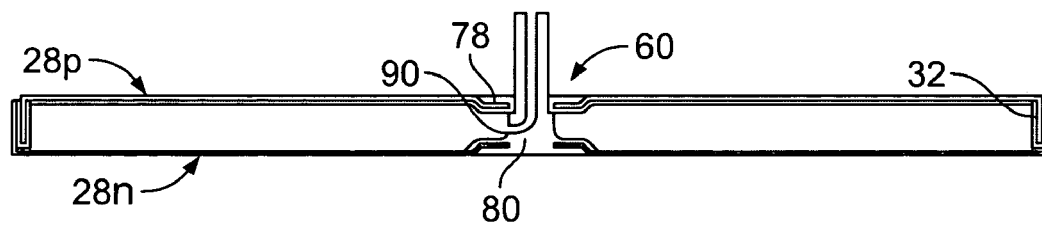


FIG. 10A

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.