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[Continued on next page]

(54) Title: AUTOMATED BATTERY DISASSEMBLY FOR RECYCLING

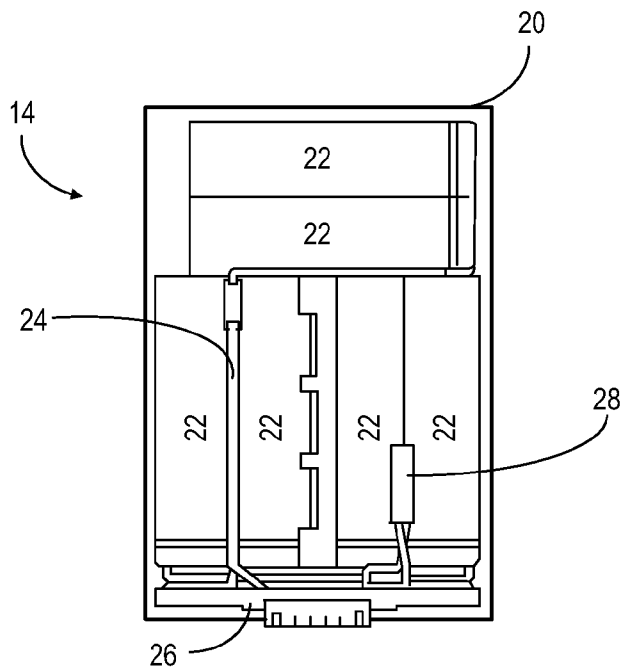


FIG. 1

(57) Abstract: Embodiments related to processing spent energy storage and conversion devices for recycling are disclosed. For example, one disclosed embodiment provides a method comprising obtaining a spent energy storage and conversion device that includes packaging containing one or more cells, opening the packaging of the spent energy storage and conversion device to expose at least a portion of the one or more cells of the spent energy storage and conversion device, discharging the one or more cells of the spent energy storage and conversion device, separating the one or more cells from the packaging to yield one or more individual cells, disassembling each cell in the one or more individual cells, where disassembling each cell comprises cutting the container of the cell, separating the container from the plurality of cell components; and separating the positive and negative electrode materials.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01M 10/54; B09B 3/00; H01M 2/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:"disassembling", "separating", "cutting", "discharging"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-2000-0019850 A (P & M CO., LTD.) 15 April 2000 See abstract, pages 1-5, claims 1-10, figures 1-3.	1-15
Y	US 6524737 B1 (TANII; TADAAKI et al.) 25 February 2003 See abstract, columns 1-32, claims 1-36, figures 1-27.	1-15
Y	JP 2007-179774 A (PANASONIC EV ENERGY CO LTD et al.) 12 July 2007 See abstract, paragraphs [0001]-[0038], claims 1-7, figures 1-9.	1-15
Y	KR 10-0281449 B1 (CANON INC.) 01 February 2001 See abstract, pages 1-15, claims 1-63, figures 1-10.	1-15
Y	KR 10-0637680 B1 (METALCHEMICAL CO., LTD.) 24 October 2006 See abstract, pages 1-4, claims 1-7, figures 1-7.	1-15

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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