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11/232,872	09/23/2005	Seok-Yoon Yoo	61610726US	9865

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EXAMINER
LEE, CYNTHIA K

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

Ex parte SEOK-YOON YOO

Appeal 2011-013632
Application 11/232,872
Technology Center 1700

Before RICHARD E. SCHAFER, KAREN M. HASTINGS, and MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 the final rejection of claims 1, 3-7, 9-19. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

Appellant's invention is directed to a rechargeable battery, a structure of a vent plate for the rechargeable battery, and a cap assembly for the rechargeable battery (Spec. para. [0002]).

Claim 11 is illustrative:

> 11. A vent plate for a battery, comprising:
>
> a plate type body;
>
> a vent formed on the body and configured to break at a pressure level; and
>
> a reinforcement portion formed along an edge of the body and in direct contact with the body.

Appellant only appeals the following prior art rejection[1]:

Claims 1, 3-7, and 9-19 are rejected under 35 U.S.C. § 103(a), as being unpatentable over Kawano (US 2004/0234842 A1 published Nov. 25, 2004) in view of Kaschmitter (US 5,609,972 issued Mar. 11, 1997).

Appellant argues subject matter common to independent claims 1, 9 and 11 (App. Br. 7-10). We select claim 11, the broadest claim on appeal, as representative.

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[1] Appellant does not appeal or provide any arguments regarding the Examiner's 35 U.S.C. § 112, second paragraph, rejection of claims 17-19 (App. Br. 5, Ans. 4-5). Accordingly, we summarily affirm this rejection.

ISSUE

Did the Examiner reversibly err in determining that it would have been obvious to substitute Kaschmitter's fracturable pressure-relief device for Kawano's non-fracturable pressure relief device to arrive at "a vent formed on the body and configured to break at a pressure level" feature of claim 11? We decide this issue in the negative.

FINDINGS OF FACT AND ANALYSES

The Examiner's findings and conclusions may be located on pages 5-10 of the Answer. Specifically, the Examiner finds that Kawano teaches all the features of claims 1, 9, and 11, except for the requirement that the main portion of the vent plate comprise a safety vent to be "broken" at a pressure level (Ans. 5-6). The Examiner relies on Kaschmitter to teach using a frangible tab that fractures if the pressure inside the battery case reaches a certain level (*id.* at 6). The Examiner concludes that it would have been obvious to substitute Kaschmitter's frangible tab for Kawano's spring and valve mechanism

> since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by the known elements, and the combination would have yielded predictable results . . . of maintaining the internal battery pressure to an acceptable level by releasing the increased pressure.

(Ans. 6-7).

Citing *In re Ratti*, 270 F.2d 810 (CCPA 1959), Appellant argues that though Kaschmitter and Kawano teach devices that reduce pressure, it would not have been obvious to substitute Kaschmitter's frangible tab pressure release for Kawano's spring and valve pressure release device because doing

so would change Kawano's principle of operation (App. Br. 8). Appellant contends that Kawano's pressure relief device operates on a non-fracturable basis thereby permitting the repetitive release of pressure whereas Kaschmitter's frangible tab fractures due to over pressure and does not permit repeated release of pressure (*id.* at 8-9, Reply Br. 5).

In response the Examiner finds that unlike the facts in *Ratti*, the substitution of Kaschmitter's frangible tab for Kawano's spring and valve pressure relief mechanism does not change the principle of operation of Kawano's device because pressure would still be released (Ans. 9-10).

The preponderance of the evidence favors the Examiner's obviousness conclusion. We agree with the Examiner that the holding in *Ratti* is not controlling with the present facts because substituting Kaschmitter's fracturable, frangible tab for the spring and valve pressure relief device in Kawano would not have changed the ability of the device to relieve pressure. Rather, the substitution would have resulted in substituting one known pressure relieving device for another pressure relieving device that uses a different way of relieving pressure as noted by the Examiner (*id.* at 9). Kawano does not teach that using a fracturable pressure relieving device in lieu of the spring and valve-type pressure relieving device would have rendered the battery inoperable. Indeed, Kaschmitter teaches that the fracturable tab pressure relieving device is applicable to batteries other than lithium ion cells, such as batteries employing liquid or solid electrolytes (Kaschmitter, col. 13, ll. 19-34).

Though Appellant argues that Kaschmitter's fracturable pressure relieving device is for a one time use and Kawano's spring and valve mechanism permits multiple repetitive discharges of gas, the ordinarily

skilled artisan would have known the benefits and shortcomings of each type of pressure relieving mechanism and selected the type appropriate for a given battery. Kaschmitter's disclosure that the fracturable pressure relief device may be used in liquid electrolyte batteries underscores that the pressure relief device selection is within the skill of the ordinary artisan.

On this record and for the above reasons, we affirm the Examiner's § 103 rejection over Kawano and Kaschmitter.

DECISION

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136.

ORDER

AFFIRMED

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