

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THIERRY BERLUREAU
and
JEAN-LOUIS LISKA

Appeal No. 2002-0262
Application No. 09/127,785

ON BRIEF

Before GARRIS, OWENS, and MOORE, *Administrative Patent Judges*.
MOORE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1-8, which are all of the claims pending in this appeal.

REPRESENTATIVE CLAIMS

Claims 1, 2, 3 and 8 are representative, and read as follows:

1. An industrial vented cell storage battery comprising:

an electrode package including at least one positive electrode containing nickel hydroxide, one negative electrode, and one hydrophilic and gas-permeable separator,

1 We note that a request for oral hearing was filed 7/12/2001. As we are convinced based upon the briefs and answer to reverse the rejection, an oral hearing is unnecessary to reach resolution of the disputed issues.

wherein the separator has an extension, which extends beyond said electrode package and is in contact with the electrolyte contained in a space between the base of said electrode package and the bottom of said container² adapted to contain at least part of an excess quantity of alkaline electrolyte, for irrigating the electrode package by capillary action of the alkaline electrolyte; and

said electrode package includes an oxygen recombination device.

2. The storage battery claimed in claim 1 wherein said quantity of electrolyte is at least equal to 120% of the quantity of electrolyte contained in the total pore volume of said electrodes, said separator and said device.

3. The storage battery claimed in claim 1 wherein said negative electrodes have a total capacity in the range [of] 100% to 150% of the total capacity of said positive electrodes.

8. The storage battery claimed in claim 1 where the space occupies a height equal to 10% of the height of the positive and negative electrodes.

The References

In rejecting the claims under 35 U.S.C. § 103(a), the examiner relies upon the following references:

Cooper et al. (Cooper)	4,436,795	Mar. 13, 1984
Kadouchi et al. (Kadouchi)	4,977,043	Dec. 11, 1990
Sanchez et al. (Sanchez)	5,576,116	Nov. 19, 1996

The Rejections

Claims 1, 2, and 4-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanchez in view of Kadouchi.

Claims 1 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cooper.

² This term appears to lack appropriate antecedent basis.

The Invention

The invention relates to an industrial vented storage battery which includes a container and an electrode package. A space is formed between the base of the electrode package and the bottom of the container. Separator extensions are dipped into electrolyte contained within the space. (Appeal Brief, page 2, lines 5-17).

I. The Rejection of Claims 1, 2, and 4-8 under 35 U.S.C. § 103(a) as being unpatentable over Sanchez in view of Kadouchi.

The examiner has found that Sanchez teaches an electrochemical cell having a container and a stack with pairs of positive and negative electrodes and a separator impregnated with alkaline electrolyte. A recombination electrode is placed at one end in a space. (Examiner's Answer, page 3, lines 15-20). The examiner states that Sanchez does not disclose the electrode package structure. (Examiner's Answer, page 4, lines 12-13).

The examiner has further found that Kadouchi discloses a three-dimensional negative electrode and Figure 1B specifically shows a battery having a space between the bottom of the container and the electrode lower end where the separator has an extension. (Examiner's Answer, page 4, line 16 - page 5, line 4).

The examiner thus concludes that it would have been obvious to one skilled in the art at the time the invention was made to incorporate the Kadouchi electrode into the Sanchez battery to

Appeal No. 2002-0262
Application No. 09/127,785

enhance the capacity density of the battery, reduce its mounting space, and improve its dischargeability and storability (Examiner's Answer, page 5, lines 5-9).

The appellants' principal point on appeal is that claim 1 recites that:

-the separator has an extension which extends beyond the electrode package, and is in contact with electrolyte contained in a space between the base of the electrode package and the bottom of the container; and

-the space is adapted to contain at least part of an excess quantity of alkaline electrolyte for irrigating the electrode package by capillary action of the alkaline electrolyte. (Appeal Brief, page 3, line 18 - page 4, line 3).

The examiner is incorrect, the appellants urge, in asserting that this structure may be implicitly taught by the reference. We agree with the appellants and disagree with the examiner's interpretation of the Kadouchi and Sanchez references. Assuming arguendo that one of ordinary skill in the art would have been properly motivated to combine the electrode of Kadouchi into the Sanchez battery, we do not see how the claimed structure is formed.

Appeal No. 2002-0262
Application No. 09/127,785

The examiner states that Figure 1B shows a battery having a space between the bottom of the container and the electrode lower end wherein the separator (5) has an extension. (Examiner's Answer, page 5, lines 1-3). However, this statement, without more, is insufficient to meet the examiner's burden to establish a prima facie case of obviousness.

If the examiner is referring to nylon frame body 22 (column 6, line 68), this open space contains a redox catalyst at the upper part of the electrode stack. If the examiner is, on the other hand, implying that there is a space in the vicinity of negative electrode lead 8 at the bottom of Figure 1B, we observe that the claim requires that the separator extend from the base of the electrode package into the space. Positive electrode 4, separator 5 and negative electrode 6 all appear to meet the bottom of the container, albeit in a rounded format with a fold for the negative electrode. We do not see the separator extending beyond the base of the electrode package into a space containing excess electrolyte.

We note that the examiner, in the Answer, page 7, last full paragraph, admits that the references do not explicitly state that the space is between the base of the electrode package and the container, stating that it "may be an implicit teaching."

Appeal No. 2002-0262
Application No. 09/127,785

The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the PTO relies on an express or an implicit showing, it must provide particular findings related thereto. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2D 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements standing alone are not "evidence." Id.

The examiner bears the burden of establishing this implicit teaching in the prima facie case of obviousness. In the absence of any evidence, the examiner has not borne the burden, and we are constrained to reverse this rejection.

II. The Rejection of Claims 1 and 3 under 35 U.S.C. §103(a) as being unpatentable over Cooper.

The examiner has found that Cooper teaches an alkaline electric storage cell having composite positive and negative pocket plates separated by composite separators. (Examiner's Answer, page 5, last 2 lines). The examiner has additionally found that there is an absorbent separator material whose lower edge dips down into the electrolyte and therefore an extended separator is disclosed (Examiner's Answer, page 6, lines 9-15).

Appeal No. 2002-0262
Application No. 09/127,785

The appellants urge that the absorbent material does not reach down into the bottom of the container and thus does not extend beyond the base of the electrode package. Further, the appellants urge that the reference does not teach the space at the bottom of the container. (Appeal Brief, page 9, lines 11-15).

The examiner urges that extending the separator is a simple change in dimension, and therefore obvious, as "the skilled artisan has sufficient sophistication to recognize that the extension of the separator may provide good performances [sic] in a battery." (Examiner's Answer, page 8, lines 5-6).

This statement is unfounded speculation without any evidentiary support in the record before us. The examiner bears the burden of explaining why the extensions would be made by one of ordinary skill in the art and why such extension would have been obvious to provide the alleged good performance. Again, in the absence of any evidence to support the examiner's position, we are constrained to reverse this rejection as well.

Summary of Decision

The rejection of Claims 1, 2, and 4-8 under 35 U.S.C. § 103(a) as being unpatentable over Sanchez in view of Kadouchi is reversed.

Appeal No. 2002-0262
Application No. 09/127,785

The rejection of Claims 1 and 3 under 35 U.S.C. §103(a) as being unpatentable over Cooper is reversed.

REVERSED

BRADLEY R. GARRIS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
TERRY J. OWENS)	
Administrative Patent Judge)	APPEALS AND
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Appeal No. 2002-0262
Application No. 09/127,785

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