

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JIANJUN WANG and DAVID A. MONDIEK

Appeal No. 2006-0661
Application No. 10/358,027

ON BRIEF

Before OWENS, BARRY, and NAPPI, **Administrative Patent Judges**.

NAPPI, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 9, 10 and 12 which constitute all the claims in the application. For the reasons stated *infra* we affirm the examiner's rejection of these claims.

Invention

The invention relates to a self-contained monitoring assembly configured to monitor hydrogen peroxide (H_2O_2) vapor during sterilization of articles. Claim 9 is representative of the invention and reproduced below:

9. A hydrogen peroxide (H_2O_2) vapor monitoring assembly for a sterilization apparatus using H_2O_2 vapor to sterilize articles, the H_2O_2 vapor monitoring system comprising:

an H_2O_2 vapor sensor configured to provide output signals corresponding to detected levels of H_2O_2 vapor, said H_2O_2 vapor sensor including a gas-detecting semiconductor element and a heater to elevate the temperature of said gas-detecting semiconductor element;

a temperature sensor configured to provide output signals corresponding to the ambient temperature proximate said H_2O_2 vapor sensor;

a data collection circuit operatively coupled to said H_2O_2 vapor sensor and said temperature sensor to receive output signals therefrom as collected data, wherein the data collection circuit is configured to perform data collection in accordance with selected conditions, said selected conditions selected from the group consisting of (a) time and (b) temperature, the data collection circuit including a signal connector to allow entry of said selected conditions for such data collection; and

a power source to provide electrical power to said H_2O_2 vapor sensor, said temperature sensor and said data collection circuit;

wherein the H_2O_2 vapor sensor, the temperature sensor, the data collection circuit and the power source are self contained on a portable structure so as to be freely positionable proximate a sterilization apparatus to monitor levels of the H_2O_2 vapor thereat.

References

The references relied upon by the examiner are:

Colvin	5,491,092	Feb. 13, 1996
Ichida et al. (Ichida)	6,189,368	Feb. 20, 2001

Rejection at Issue

Claims 9, 10 and 13 stand rejected under 35 U.S.C. § 103 as being obvious over Ichida in view of Colvin. Throughout the opinion we make reference to the brief and the answer for the respective details thereof.

Opinion

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

With full consideration being given to the subject matter on appeal, the examiner's rejection and the arguments of appellants and the examiner, and for the reasons stated *infra* we sustain the examiner's rejections of claims 9, 10 and 13 under 35 U.S.C. § 103.

Appellants argue, on page 6 of the brief, that the references provide no motivation to be modified as asserted by the examiner. Appellants assert that Colvin's teaching of a steam sterilizer does not teach or suggest that the device can be adapted to monitor another sterilization chemical such as H₂O₂ vapor. Similarly, appellants assert that Ichida's teaching is of a stationary H₂O₂ vapor monitoring device and provides no suggestion to re-designed the device to be capable of being in a self-contained portable structure.

The examiner provides a comprehensive response on pages 3 through 5 of the answer. The examiner identifies that the rejection relies upon Ichida to teach the H₂O₂ vapor detector and Colvin for a teaching housings for sterilization. See page 4 of the answer. Further, the examiner finds that Colvin teaches that the advantage of portability,

“the positioning of sensors within the chamber, especially by retrofitting, can however, create further problem areas for future concern.” (column 3, lines 5-11). Colvin is referring to US Patent 4,372,916 that teaches only temperature and pressure sensing devices apparently fixedly mounted (not expressly by retrofitting) within a sterilization chamber.

Additionally, on page 5 of the answer, the examiner provides two additional reasons why one would be motivated to modify Ichida’s device to make it portable. The examiner asserts that:

The portable sensors do not need wire intrusions through the chamber wall which could be a source of leak and leaking would be a bad thing in any kind of vapour sterilization chamber. The portable sensor unit may be moved to any position in the chamber where sterilization is insufficient. This too would appear to apply to either a chemical or steam sterilization chamber where chemical and steam vapors obey the laws of fluid dynamics.

We concur with the examiner. Our reviewing court stated in *In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433, that when making an obviousness rejection based on combination, “there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by Applicant” (quoting *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998)) “The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in

the art, or, in some cases the nature of the problem to be solved.” *In re Huston* 308 F.3d 1267, 1278, 64 USPQ2d 1801, 1810 (Fed. Cir. 2002, citing *In re Kotzab* 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). We agree with the examiner’s findings that Colvin suggests mounting the sensors, data collection circuit and power supply in a portable self-contained housing to facilitate placement of sensors in a chamber. As the examiner identifies, on page 5 of the answer, Ichida does not provide many details on how the sensors are mounted. In the embodiment shown in Ichida’s figure 5, H₂O₂ vapor sensor, item 71, and temperature sensor, item 73, are shown inside the chamber and the arithmetic unit outside the chamber. Figure 5 is shown in block diagram format, and does not show physical arrangements of other features of the system. Thus, given, Ichida’s lack of disclosure of a physical arrangement of the sensors and data collection circuit, we find that one of skill in the art would have looked to the housings for other sterilizers such as Colvin’s.

Additionally we note that, Ichida discusses in column 17, that the invention can be applied to sterilization of facilities such as sick rooms, movie theaters, transportation means, etc., “wherein the facilities themselves serving as the treatment vessel.” See column 17, lines 59 through column 18, line 2. Thus, we consider that one using Ichida’s sterilization system in facilities, who’s primary purpose is not as a sterilization chamber i.e. movie theater, transportation means, would look to a way to make the monitoring device portable to reduce the modification to the facilities.

For the foregoing reasons we find that the references present ample evidence to demonstrate motivation to combine the references.

On page 7 of the brief, appellants assert that Ichida relates to sterilizing objects such as pharmaceutical basic materials, food packaging etc, and Colvin relates to sterilizing reusable medical supplies such as dressings, gowns, drapes etc. As such, appellants reason “[t]hese fields are so distinguishable that one of ordinary skill in the art would not have looked to the one to solve a problem in the other.” We are not persuaded by this argument. As the examiner states on page 8 of the answer, “both are intended for sterilizing of medical supplies.” Further, we note that Ichida is not limited to sterilizing the objects listed by appellants, Ichida teaches that when facilities are sterilized, interior items therein are sterilized such as beds, desks and chairs (and assumedly anything else in the facility). As such, we find that Ichida and Colvin are analogous they teach monitoring the sterilization process in an enclosed space.

Similarly, we are not persuaded by appellants arguments directed to the difference between steam sterilization and H₂O₂ vapor sterilization. While we recognize that the sensors and underlying sterilization processes are different, we do not consider the differences to deter one skilled in the art from considering both technologies in finding a housing for the sensor. That is, we consider the two references to be analogous and find no evidence that would show that one skilled in the art would be discouraged by using the housing of Colvin for the H₂O₂ vapor sterilization monitoring device of Ichida.

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For the foregoing reasons, we sustain the examiner's rejection of claims 9, 10 and 12 under 35 U.S.C. § 103.

Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief or by filing a reply brief have not been considered and are deemed waived by appellants (see 37 CFR § 41.37(c)(vii)) Support for this rule has been demonstrated by our reviewing court in *In re Berger* 279 F.3d 975, 984, 61 USPQ2d 1523, 1528-1529 (Fed. Cir. 2002) wherein the Federal Circuit Court stated that because the appellants did not contest the merits of the rejections in his brief to the Federal Circuit Court, the issue is waived. *See also In re Watts* 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

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In summary, we sustain the examiner's rejection of claims 9, 10 and 12 under 35 U.S.C. § 103. The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

TERRY J. OWENS)	
Administrative Patent Judge)	
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LANCE LEONARD BARRY)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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