

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAUL A. WERTHMAN, GARY E. SCHRADER,  
PETER A. WALTZ and MICHAEL RZASA

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Appeal 2007-2537  
Application 11/170,468<sup>1</sup>  
Technology Center 2800

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Decided: August 9, 2007

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Before RICHARD TORCZON, SALLY GARDNER LANE, and  
SALLY C. MEDLEY, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

DECISION ON APPEAL

1           **A. Statement of the Case**

2           Applicants appeal under 35 U.S.C. § 134 from a final rejection of  
3           claims 11-16. We have jurisdiction under 35 U.S.C. § 6(b).

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1   Application for patent filed 28 June 2005. The real party in interest is FCI Americas Technology, Inc.



1           **B. Issue**

2           The issue is whether Applicants have shown that the Examiner erred  
3 in determining claims 1-4, 6-8, 10, 11, 13-18 and 21-23 to be unpatentable  
4 under 35 U.S.C. § 103(a) over the prior art.

5           **C. Findings of fact (“FF”)**

6           The record supports the following findings of fact as well as any other  
7 findings of fact set forth in this opinion by at least a preponderance of the  
8 evidence.

9           1. Applicants’ claims 1-4, 6-8, 10, 11, 13-18 and 21-23 are the  
10 subject of this appeal.

11          2. Independent claim 1 is as follows:

12               1. An electrical connector comprising:

13                   a main section comprising a first connection section adapted to  
14 connect to a first electrical conductor and a second connection section  
15 adapted to connect to a second electrical conductor, wherein the main  
16 section is adapted to electrical[ly] connect the first electrical  
17 conductor to the second electrical conductor; and

18                   a connector performance indicating section connected to a  
19 portion of the main section, wherein the connector performance  
20 indicating section comprises a temperature sensitive chemical  
21 indicator adapted to signal and permanently record a temperature of  
22 the portion of the main section above a predetermined temperature,

1 wherein the connector performance indicating section comprises a  
2 label.

3 3. Independent claim 11 is as follows:

4 An electrical connector comprising:

5 a compressible connection section which is sized and shaped to  
6 be compressibly crimped onto an electrical conductor; and

7 a visual indicium temperature sensitive indicator on the  
8 compressible connection section, wherein the temperature sensitive  
9 indicator is adapted to signal and permanently record occurrence of a  
10 temperature at the temperature sensitive indicator above a  
11 predetermined temperature.

12 4. Independent claim 21 is as follows:

13 An electrical connector comprising:

14 a compressible connection section which is sized and shaped to  
15 be compressibly crimped onto an electrical conductor; and

16 a non-electrical temperature sensitive indicator on the  
17 compressible connection section, wherein the temperature sensitive  
18 indicator is adapted to signal and permanently record occurrence of a  
19 temperature at the temperature sensitive indicator above a  
20 predetermined temperature.

21 5. Independent claim 22 is as follows:

22 A method of manufacturing an electrical connector comprising:

1            providing an electrical connector member with a compressible  
2            connection section adapted to be deformingly crimped onto an  
3            electrical conductor; and  
4            mechanically connecting a temperature sensitive indicator to the  
5            electrical connector member onto the compressible connection  
6            section, wherein the temperature sensitive indicator is adapted to  
7            permanently signal by visual indicium occurrence of a temperature at  
8            the temperature sensitive indicator above a predetermined  
9            temperature.

10            Connor

11            6. The Examiner found that Connor describes the connector structure  
12            identical to Applicants' Fig. 9.

13            7. The Examiner found that the claimed subject matter differs from  
14            Connor in that Connor does not describe a temperature sensitive chemical  
15            indicator or temperature sensor label or using multiple indicators (claims 6,  
16            7, and 23) (Final Rejection 3-4 and Answer 4-5).

17            Laske

18            8. The Examiner found that Laske describes a temperature sensitive  
19            chemical indicator (Final Rejection 3 and Answer 4).

20            9. Laske describes paints applied to an apparatus or conduit that  
21            change in color with an increase in temperature (Laske 1:3-6).

22            10. Laske describes that the change is permanent so an assessment  
23            may be made to determine if a part should be replaced (Laske 1:8-24).

1           11. Laske describes that the paints described are useful for indicating  
2 where a conduit or cable end has been overloaded (Laske 2:70-75).

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5           Admitted prior art

6           12. The Examiner found that the admitted prior art (“APA”) includes  
7 permanent color change temperature indicating labels at Specification  
8 ¶0004. (Final Rejection 4 and Answer 5).

9           13. Paragraph 0004 of the Specification is under the section labeled  
10 “BACKGROUND OF THE INVENTION – Brief Description of Prior  
11 Developments” and is as follows:

12           Phase change temperature indicating labels and paints are  
13 known. They provide the feature of a permanent color change  
14 when a specified temperature is exceeded. For example,  
15 Lakfabriek Korthals BV, of Ijmuiden, The Netherlands sells  
16 Therm-O-Signal™ coatings which, by a perceptible change in  
17 color, indicate that a pre-selected temperature has been reached  
18 or exceeded. Telatemp Corporation of Fullerton, California  
19 sells irreversible temperature labels which contain one or more  
20 sealed temperature sensitive chemical indicators which sense  
21 and record surface temperatures.

22

23           Weibe

24           14. The Examiner found that Weibe describes using temperature  
25 sensitive labels to indicate excessive heat (Final Rejection 4 and Answer 5).

1           15. Weibe describes affixing temperature indicating decals on  
2 electronic components, which illuminate when a temperature level is  
3 exceeded (Weibe 2:6-16).

4           Ko

5           16. The Examiner found that Ko describes using temperature  
6 sensitive labels to indicate excessive heat (Id).

7           17. The Examiner also found that Ko describes using multiple  
8 indicators (Id.).

9           18. Ko describes a plurality of warning strips (Fig. 2 items 31, 32, 33)  
10 placed on a PVC power cord for indicating when a predetermined  
11 temperature of the cord has been exceeded (Ko 2:10-32).

12           19. Ko describes that its invention is related to a warning device  
13 capable of detecting overload or overheat for electric cords, cables, or  
14 sockets (Ko 1:8-11).

15           The Examiner's reasoning for combining the references

16           20. The Examiner found that one skilled in the art would have used a  
17 temperature indicator as taught by the APA, Laske, Weibe or Ko on the  
18 Connor structure, so as to warn a person that a temperature of the connector  
19 had risen to an undesirable temperature (Final Rejection 4 and Answer 4).

20           21. With respect to claims 3, 11, 13-18 and 21, the Examiner  
21 concluded that it would have been obvious to locate the temperature  
22 indicator on the compressible section of the connector, since one of ordinary

1 skill in the art would want to place the indicator on the area that would be  
2 subjected to the highest temperature (Answer 9).

3 Applicants' arguments

4 22. With respect to Group I (claims 1, 2, 4, 6-8 and 10) Applicants  
5 argue that (Br. 5-7):

6 a) there has been no admission that the noted labels mentioned in  
7 paragraph 0004 of Applicants' specification are analogous prior art;

8 b) Laske uses paints and not labels;

9 c) Weibe places temperature decals on resistors or IC chips; not on an  
10 electrical connector;

11 d) Ko describes placing a strip on a power cord and makes no  
12 suggestion to replace Laske's paint with the strip; and

13 e) there is no suggestion to combine the references as proposed by the  
14 Examiner.

15 23. With respect to Group II (claim 3), Group III (claims 11 and 13-  
16 18), and Group IV (claim 21), Applicants argue that (Br. 8-12):

17 Even though a person of ordinary skill in the art would  
18 know where the areas of a connector most prone to temperature  
19 damage are located, it was not obvious to place a temperature  
20 sensor on the compressible section of the connector, since once  
21 the compressible section is crimped onto the conductor, the  
22 label will become damaged (Br. 9-11).

23

24 24. With respect to Group V (claim 22) Applicants argue that (Br.  
25 13): "The features are not disclosed or suggested in the art of record."

26 **D. Principles of Law**

1 A claimed invention is not patentable if the subject matter of the  
2 claimed invention would have been obvious to a person having ordinary  
3 skill in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct.  
4 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co. of Kansas City*,  
5 383 U.S. 1 (1966).

6 Facts relevant to a determination of obviousness include (1) the scope  
7 and content of the prior art, (2) any differences between the claimed  
8 invention and the prior art, (3) the level of skill in the art and (4) any  
9 relevant objective evidence of obviousness or non-obviousness. *KSR*,  
10 82 USPQ2d at 1389, *Graham*, 383 U.S. at 17-18.

11 **E. Analysis**

12 *Group I (claims 1, 2, 4, 6-8, 10 and 23<sup>4</sup>)*

13 The Examiner relied on paragraph 0004 of Applicants' specification  
14 as admitted prior art. The paragraph is found under the title "Brief  
15 Description of Prior Developments" and describes that temperature  
16 indicating labels and paints are known and on sale (FF 13). Applicants  
17 argue that paragraph 0004 of the specification is not an admission that the  
18 labels are analogous prior art (FF 22(a)) and that the "applicants' attorney  
19 does not know whether or not the products mentioned in the background  
20 section were on sale more than one year before the filing of the present  
21 patent application" (Reply Br. 2). Applicants' response to the

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4 Applicants do not include dependent claim 23 with any of its groups.  
Claim 23, which depends from claim 1, stands or falls with Group I, since it

1 Examiner's findings is insufficient to demonstrate that the Examiner erred in  
2 relying on the description found in the Specification as prior art. By using  
3 the term "Brief Description of Prior Developments" there is a presumption  
4 that the described subject matter is "prior art" absent an express denial by  
5 Applicants. Applicants' argument that the attorney does not know if the  
6 labels were on sale more than a year, or that there has been no admission that  
7 the labels are "analogous" prior art are not sufficient to deny the truth of the  
8 apparent admissions.<sup>5</sup> Based on the record before us, the Examiner's finding  
9 that paragraph 0004 is prior art has not been demonstrated to be in error.  
10 Therefore, we accept the statements made in paragraph 0004 as being  
11 admissions of known prior art.

12 In any event, the Examiner found that Laske, Weibe and Ko describe  
13 what the admitted prior art does – that temperature labels and paints were  
14 known. Applicants exhaust much effort in explaining why each individual  
15 reference alone fails to meet the claimed invention (FF 20(b)-(d)). Attacking  
16 references individually, when the rejection is based on a combination of  
17 references is not particularly helpful. Nonobviousness cannot be established  
18 by attacking the references individually where the rejection is based upon  
19 the teachings of a combination of references. *See In re Merck & Co.*,  
20 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

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is similar to claims 6-8, which Applicants include in Group I.

<sup>5</sup> Applicants are reminded of their duty to disclose information material to patentability. 37 CFR § 1.56.

1           For example, Applicants' argument that Laske uses paints and not  
2 labels is not helpful. The Examiner did not rely on Laske to teach the  
3 claimed labels. Rather, the Examiner relied on Laske to demonstrate that  
4 temperature indicators on connectors for indicating an overload or excessive  
5 temperature were known. The Examiner also found that one of ordinary  
6 skill in the art knew that temperature sensing labels existed and could be  
7 used instead of paints for detecting over temperature or overload conditions,  
8 citing to Weibe and Ko. Applicants do not dispute the Examiner's findings  
9 with respect to what the individual references teach (FF 22). Thus, the  
10 inquiry becomes would it have been obvious to combine the teachings of  
11 Laske with Ko or Weibe, not whether each and every individual reference  
12 describes each and every claimed limitation. The Examiner's rejection is  
13 based on obviousness, not anticipation. For these reasons, Applicants'  
14 attack of the references individually is without merit, and we need not and  
15 will not address Applicants' arguments in that respect.

16           Applicants also argue that the combination made by the Examiner was  
17 improper and that there is no suggestion, teaching or motivation to combine  
18 the references (FF 20(e)). The Examiner made specific findings why the  
19 combination would have been obvious. For example, the Examiner found  
20 that one of ordinary skill in the art knew how and would want to use  
21 temperature sensing paints or labels for permanently recording an over  
22 temperature or overload condition (FF 20). The Examiner found that Ko  
23 specifically teaches using temperature sensing labels on sockets, which the

1 Examiner found to be a connector (FF 19). Applicants' conclusory  
2 arguments are not sufficient to overcome the Examiner's specific findings.

3 Group II (claim 3), Group III (claims 11 and 13-18), and group IV  
4 (claim 21)

5 The argument with respect to claims 3, 11, 13-18 and 21 is the same  
6 and therefore we address those claims together. Claim 11, which is  
7 representative of the disputed language of claims 11, 13-18 and 21, recites  
8 that a visual indicium temperature sensitive indicator is on the compressible  
9 connection section of the connector. The Examiner found that one of  
10 ordinary skill would have known to place the indicator on the portion of the  
11 connector that would be subjected to the most stress during operation, which  
12 would be the compressible connection section of a connector (FF 21).

13 Applicants apparently agree that one of ordinary skill would have  
14 known to locate the temperature sensitive indicator at the areas of a  
15 connector most prone to temperature damage, e.g., at the compressible  
16 section of the connector (Reply Br. 5). Nonetheless, Applicants argue that it  
17 would not have been obvious to place a temperature sensor on the  
18 compressible section of the connector, since once the compressible section is  
19 crimped onto the conductor, the label would be damaged (FF 23).

20 None of Applicants' claims 11, 13-18 and 21 recites a label. Those  
21 claims are broad enough to cover other embodiments, such as paints.  
22 Therefore, Applicants' argument with respect to why one of ordinary skill in  
23 the art would not want to place the "label" on the crimped portion since the

1 label could be damaged is not commensurate in scope with the full breadth  
2 of the claim language. Applicants have failed to submit evidence that  
3 crimping would have any adverse effect of a painted temperature sensitive  
4 indicator for example.

5 Claim 3 recites that the connector performance indicating section is  
6 located on the compressible section. The connector performance indicating  
7 section comprises a label (claim 1). Applicants have failed to direct us to  
8 evidence to support the assertion that one of ordinary skill in the art would  
9 not put the label on the compressible section, since doing so would damage  
10 the label once the connector is crimped onto the conductor<sup>6</sup>.

11 We will not credit Applicants' unsupported argument. *Rohm & Haas*  
12 *Co. v. Brotech Corp.*, 127 F.3d 1089, 1092, 44 USPQ2d 1459, 1462 (Fed.  
13 Cir. 1997) (Nothing in the rules or in jurisprudence requires trier of fact to  
14 credit unsupported or conclusory assertions). Based on the record before us,  
15 it would have been obvious to locate the temperature indicator (label) on the  
16 compressible portion of the connector, e.g., the portion of the connector that  
17 would be subjected to an overload or overtemperature.

18 Accordingly, with respect to claims 11, 13-18 and 21 we sustain the  
19 Examiner's rejections.

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6 Paragraph 0037 of the Specification, which Applicants direct our attention to, does not support the assertions made either. The paragraph describes that indicia stamped on the connector may become distorted or smeared after the crimp is made. However, there is no discussion that labels will be damaged or would not function for their intended use.

1           Group V (claim 22)

2           Applicants' sole argument with respect to claim 22 is that "the  
3 features are not disclosed or suggested in the art of record." The statement  
4 alone is not sufficient to demonstrate error in the Examiner's specific  
5 findings. The references already discussed are facially consistent with the  
6 Examiner's rejection. Accordingly, we sustain the Examiner's rejection of  
7 claim 22.

8           **E. Decision**

9           Upon consideration of the record, and for the reasons given, the  
10 Examiner's rejection of claims 1-4, 6-8, 10, 11, 13-18 and 21-23 stand  
11 rejected under 35 U.S.C. § 103(a) as being unpatentable over Connor in  
12 view of Laske, the admitted prior art, Weibe and Ko is affirmed.

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

AFFIRMED

smt

Appeal 2007-2537  
Application 11/170,468

cc (Via U.S. Mail):

Dykema Gossett PLLC  
2723 SOUTH STATE STREET  
SUITE 400  
ANN ARBOR MI 48104