

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES LARRY JONES

Appeal No. 2005-2546
Application No. 09/862,910

ON BRIEF

Before KIMLIN, WALTZ and KRATZ, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 7, 9, 10 and 13. Claims 1, 3-6 and 8 have been withdrawn from consideration as being directed to a non-elected invention.

Claim 7 is illustrative:

7. A cooling assembly for an electromechanical device, the assembly comprising:

a housing having a wall portion;

a magnetic field member disposed within said housing and arranged adjacent said wall portion;

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a shaft having windings located within said magnetic field member with an electrical current flowing through said windings coating with said magnetic field member, wherein at least one of said magnetic field member and said windings produces heat; and

a helical cooling coil defining a fluid conduit arranged adjacent said magnetic field member for removing said heat, wherein said wall portion is disposed between said coil and said windings with said coils secured to said wall portion with a mechanical fastening element.

In addition to the admitted prior art, the examiner relies upon the following references as evidence of obviousness:

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| Litton | 2,362,911 | Nov. 14, 1944 |
| Schade Jr. (Schade) | 3,554,275 | Jan. 12, 1971 |

Appellant's claimed invention is directed to a cooling assembly for an electromechanical device, such as a generator or electric motor. The assembly comprises a helical cooling coil that is adjacent to a magnetic field member disposed within the housing of the assembly. According to appellant, use of the claimed cooling coil results in a cost savings in the amount of stainless steel used relative to the cooling chamber of the admitted prior art. Appellant explains that "[b]y utilizing the helical coils of the present invention, the large stainless steel housing and external wall of the prior art may be eliminated thereby reducing the overall cost of the electromechanical device" (page 4 of principal brief, third paragraph).

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Appealed claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art, as depicted in appellant's Figure 1, in view of Litton. Claims 7, 9 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Litton and Schade.

In accordance with the grouping of claims set forth at page 5 of the principal brief, claims 7, 9 and 10 stand or fall together, whereas claim 13 is separately argued.

We have thoroughly reviewed each of appellant's arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections for the reasons set forth in the Answer, and we add the following primarily for emphasis.

We consider first the examiner's § 103 rejection of claim 10 over the admitted prior art in view of Litton. Since Litton discloses embodiments for a heat exchanger including both a cooling jacket of the type used in the admitted prior art, and a helical cooling coil 34 like appellant's, we fully concur with the examiner that one of ordinary skill in the art would have found it obvious to substitute the claimed helical cooling coil

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for the cooling chamber of the admitted prior art. Indeed, the use of cooling coils in heat exchangers was notoriously well known at the time of filing the present application. Appellant has proffered no objective evidence that the claimed cooling coil provides unexpected results relative to the cooling chamber of the admitted prior art.

The principal argument advanced by appellant is that the applied prior art does not address the problem solved by the claimed invention, namely, reducing the large amount of costly stainless steel used in making the cooling assembly. However, it is well settled that it is not necessary for a finding of obviousness under § 103 that the prior art articulate the same motivation for modification as expressed by applicant. In re Kemps, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996). It is sufficient that the prior art provides some motivation for the modification. In the present case, Litton demonstrates that a helical cooling coil is a viable option for the cooling chamber of the admitted prior art. Moreover, given the availability in the prior art of helical cooling coils, we are confident that the problem addressed by appellant, and its solution, would have been readily apparent to one of ordinary skill in the art. In re Ludwig, 353 F.2d 241, 243-44, 147 USPQ2d 420, 421 (CCPA 1965).

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As for the separately argued claim 13 requirement of using a brazed joint to connect the coil to a wall portion of the assembly, we agree with the examiner that it would have been obvious for one of ordinary skill in the art to use the well-known techniques of brazing or soldering to mechanically fasten the coils. While appellant cites "Manufacturing Engineering and Technology 886-87, 891-92 (Addison-Wesley Publishing Co. 1989)" for establishing a distinction between brazing and soldering (different filler metals are used), we find that the reference underscores the obviousness of employing brazing to mechanically fasten the coils. We agree with the examiner that the soldering disclosed by Schade would have suggested brazing to one of ordinary skill in the art, and appellant has not advanced any argument which details why one of ordinary skill in the art would not have considered brazing the cooling coil as a suitable alternative to soldering the coil.

As noted above, appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the examiner.

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In conclusion, based on the foregoing and the reasons well stated by the examiner, the examiner's decision rejecting the appealed claims 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) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

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| EDWARD C. KIMLIN |) | |
| Administrative Patent Judge |) | |
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| THOMAS A. WALTZ |) | BOARD OF PATENT |
| Administrative Patent Judge |) | APPEALS AND |
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| PETER F. KRATZ |) | |
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