

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID CLEMENS

Appeal 2007-0102
Application 10/338,988
Technology Center 3700

Decided: June 1, 2007

Before BRADLEY R. GARRIS, CHARLES F. WARREN, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

We AFFIRM.

This is a decision on an appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 3, 5-8, 10, 12-17, 19, and 21-23. We have jurisdiction under 35 U.S.C. § 6.

The Appellant claims a radiator element and a method for the manufacture thereof. The radiator element comprises a lamella element 28

and a radiator sheet 22 (Fig. 1). The radiator sheet comprises projections 8 for the purpose of attaching the lamella element to the radiator sheet wherein the projections have a first length along an edge of the radiator sheet and a second length in a vertical direction, and wherein the first length is approximately equal to the length of the lamella element (Fig. 2a). Each of the projections comprises a notch 9 along an edge of the respective projection for facilitating the bending process (Fig. 2a). Representative claims 1, 3, and 16 are reproduced below:¹

1. A radiator element for use in an air heating device, comprising:

at least one lamella element; and

a radiator sheet,

wherein said radiator sheet comprises projections on at least two of its edges for the purpose of attaching said lamella element to said

¹ Certain of the dependent claims on appeal, including separately argued claim 3, inappropriately depend from a cancelled claim. The Examiner's Answer includes an attached "Examiner's Amendment" which attempts to correct this informality by amending the dependency of the aforementioned claims. For example, claim 3 has been "amended" so that it depends from independent claim 1 rather than cancelled claim 2. In his Reply Brief, the Appellant states that he "agrees with the Examiner's Amendment" (Reply Br. 2). Therefore, in our disposition of this appeal, we will treat claim 3 as though it depends from claim 1. However, the Examiner appears to have no authority for making the earlier noted "Examiner's Amendment." See *The Manual of Patent Examining Procedure* (MPEP) § 1302.04 *et seq.* (8th ed., Rev. 5, August 2006). For this reason, the Appellant should consider filing an amendment to correct inappropriate claim dependencies in any further prosecution that may occur.

radiator sheet, wherein the projections have a first length along the respective edge and a second length in a vertical direction, and wherein the first length of the projections is approximately equal to the length of the lamella element and wherein the first length is a multiple of the second length,

wherein said projections are adapted to be folded by at least 90° when attaching said lamella element until they are pressed laterally to said lamella element, and

wherein each of said projections comprise [sic, comprises] a notch along an edge of the respective projection for facilitating the bending process.

3. The radiator element as claimed in claim 2 [sic, claim 1], wherein the first length of the projections is equal to the respective edge length.

16. The method as claimed in claim 15, wherein the step of putting said at least one lamella element onto said radiator sheet comprises:

forming a slightly opened U-sheet by folding the projections;
and

inserting said at least one lamella element into the U-like sheet.

The references set forth below are relied upon by the Examiner as evidence of obviousness:

Uchida	JP 54-014360	Feb. 2, 1979
Jackson	GB 2,197,810 A	Jun. 2, 1988
Kawate	US 5,471,034	Nov. 28, 1995

All of the claims on appeal are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawate in view of Jackson or Uchida. It is the Examiner's position that Kawate fails to disclose a notch along the edge of

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his projections but that it would have been obvious for one with ordinary skill in the art to provide Kawate with notches along the edge in order to assist in folding and thus forming the projections as taught by Jackson or Uchida (Answer 5-6).

The Appellant argues that there is no motivation to combine the teachings of Kawate and Jackson or Uchida in the manner proposed by the Examiner (Br. 10-11; Reply Br. 3-4). Additionally, the Appellant argues that the appealed claims differ from Kawate in ways not recognized by the Examiner. In particular, the Appellant contends that Kawate contains no teaching or suggestion that his projections are “for the purpose of attaching said lamella element to said radiator sheet” as recited in claim 1 or that the first length of Kawate’s projections “is approximately equal to the length of the lamella element” (claim 1) or “is equal to the respective edge length” (claim 3). Br. 8-10, 12. Moreover, it is the Appellant’s position that Kawate contains no teaching or suggestion of the claim 16 step “forming a slightly opened U-sheet by folding the projections; and inserting said at least one lamella element into the U-like sheet” (Br. 12-13).

OPINION

For the reasons expressed in the Answer and below, we will sustain the rejection before us in this appeal.

The No-Motivation Argument

Contrary to the Appellant’s belief, a teaching, suggestion, or motivation to combine the relevant prior art teachings does not have to be

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found explicitly in the prior art, as the teaching, suggestion, or motivation may be implicit from the prior art as a whole. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336; cited with approval in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

The Appellant does not dispute the Examiner's finding that Kawate discloses terminal plates (i.e., radiator sheets) 26,28 which include projections that are alternately bent up and down (Fig. 2) or the Examiner's finding that each of Jackson and Uchida teaches that a bending operation is facilitated by use of a bend line (Jackson, Figs. 1-2) or V-shaped groove (Uchida, Figs. 3-4). Instead, it is the Appellant's basic position that, because Kawate's projections are alternately bent up and down, the provision of bend lines or V-shaped grooves would result in "a difficult and expensive complication to the manufacturing process" and therefore "one of skill in the art would not be motivated to combine these references, but rather would have a strong disincentive to combine them" (Br. 11).

This position is not well taken. There is no evidence in this record that an artisan would have considered the advantages taught by Jackson and Uchida to be outweighed by the difficulty and expense of providing Kawate with Jackson's bend lines or Uchida's V-shaped grooves. Regardless, the possibility that the Examiner's proposed combination would not have been made by businessmen for economic reasons does not mean that persons skilled in the art would not have made this combination. *In re Farenkopf*, 713 F.2d 714, 718, 219 USPQ 1, 4 (Fed. Cir. 1983). Here, obviousness is

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supported by the fact that providing Kawate with Jackson's bend lines and Uchida's V-shaped grooves would have yielded predictable and advantageous results. *KSR*, 127 S.Ct at 1740, 82 USPQ2d at 1396.

In further support of his no-motivation argument, the Appellant points out that Kawate's device would not experience the type of problem addressed by the here-claimed invention, that is, "there would be no crush of material making the use of notches desirable" in Kawate (Br. 11). However, the reason to combine prior art references does not have to be identical to that of the applicant in order to establish obviousness. *KSR*, 127 S.Ct. at 1743, 82 USPQ2d at 1398; *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996).

In light of the foregoing, we are unpersuaded by the Appellant's contention that one skilled in this art would not have combined the applied references in the manner proposed by the Examiner.

For a number for reasons, we also are unpersuaded by the Appellant's argument that claim 1 distinguishes over Kawate by reciting that the claimed projections are "for the purpose of attaching said lamella element to said radiator sheet."

First, this recitation is merely a statement of intended use such that claim 1 reads on Appellant's disclosed embodiment wherein the lamella element has been inserted into a U-shaped radiator sheet prior to the step of pressing on the projections to thereby clamp the lamella element in place (Specification 11:5-9). Prior to the pressing step, the projections of this

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embodiment correspond to the terminal plate projections shown in Figure 2 of Kawate. These last mentioned projections certainly are capable of being pressed into engagement with Kawate's heat transfer member or lamella element. *See In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

Second, Kawate's projections perform an "attaching" function when the claim 1 language is given its broadest reasonable interpretation consistent with the Specification as interpreted by one of ordinary skill in the art. *In re American Academy of Science Tech. Cen.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004). In this regard, the Appellant discloses the projections are for "attaching" or "fixing" the lamella element on the radiator sheet (Specification 5, ll. 2 and 26), but does not define what is meant to be encompassed by the term "attaching." Therefore, it is appropriate to consult the dictionary definition of the term "attach." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317-18, 75 USPQ2d 1321, 1329-30. The word "attach" is defined as "[t]o fasten on or affix to: connect or join" (*Webster's II New Riverside University Dictionary* 1984). Given this definition, it is proper to regard the forward and rearward projections shown in Figure 2 of Kawate as performing the claim 1 purpose of "attaching" or fixing since they fix in place Patentee's heat transfer members or lamella elements in the forward and rearward directions.

In addition, we find no convincing merit in the Appellant's position that claim 1 distinguishes over Kawate via the recitation "wherein the first

length of the projections is approximately equal to the length of the lamella element.” We appreciate that Figure 2 of Kawate shows several projections along the forward and rearward edges of the terminal plates or radiator sheets and that the individual lengths for each of the individual projections is less than the length of the heat transfer member or lamella element.

However, the cumulative length of the projections at the respective forward and rearward edges is equal to the length of the heat transfer member or lamella element as clearly shown in Figure 2. Significantly, the language of claim 1 encompasses plural projections along each edge wherein the first length comprises the cumulative lengths of these plural projections as shown in Kawate’s Figure 2. For analogous reasons, we are unpersuaded by the Appellant’s argument that claim 3 distinguishes over Kawate via the recitation “wherein the first length of the projections is equal to the respective edge length.”

Finally, we are unconvinced by the Appellant’s contention that the Kawate patent contains no teaching or suggestion of the claim 16 steps “forming a slightly opened U-sheet by folding the projections; and inserting said at least one lamella element into the U-like sheet.” According to the Appellant: “The projections of Kawate . . . are bent alternately slightly up or down after assembly of this heater module. See Kawate, col. 5, lines 1-5.” (Br. 12-13). However, Kawate’s disclosure at lines 1-5 in column 5 does not teach that the projections are bent “after assembly” (*id.*, emphasis added). Instead, Kawate is silent as to whether the projections are bent before or

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after assembly. The very fact that Kawate is silent regarding these bending step alternatives would have suggested to an artisan that either alternative would be acceptable. We conclude, therefore, that it would have been obvious for the artisan to bend Kawate's projections before assembling (or inserting) the heat transfer member (or lamella element) into the U-like terminal plate (or radiator sheet).

Under the circumstances recounted above, it is our ultimate determination that the reference evidence adduced by the Examiner establishes a *prima facie* case of obviousness which the Appellant has failed to successfully rebut with argument or evidence of nonobviousness. *In re Oetiker*, 977 F.2d 1443, 1444-45, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). We hereby sustain, therefore, the Examiner's § 103 rejection of all the appealed claims as being unpatentable over Kawate in view of Jackson or Uchida.

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 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

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