

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAYOKO MASAKI and KAZUMASA OSUMI

Appeal No. 2005-0788
Application No. 09/772,259

HEARD: May 18, 2005

Before JERRY SMITH, BLANKENSHIP, and SAADAT, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 4-7 and 9-11, which constitute all the claims pending in the application.

The disclosed invention pertains to a surface light source device of side light type to be applied to a liquid

crystal display and the like, and more particularly, to a surface light source device of side light type in which a light guide plate directive in light emission is used, and a light control element suitable for use in the device.

Representative claim 4 is reproduced as follows:

4. A surface light source device of sidelight type, comprising:

a light guide plate having an incidence end surface, an exiting surface and an incline surface gradually decreasing away from the incidence end surface;

a reflecting sheet disposed along the inclined surface, an exiting surface and an incline surface gradually decreasing away from the incidence end surface;

a primary light source supplying illumination light to said light guide plate from said incidence end surface, the supplied light being deflected in the in the light guide plate and emitted from the exiting surface of the light guide plate; and

a light control element disposed along the exiting surface of said light guide plate, the light control element extending in a plane, having a light entrance side with a prismatic surface adjacent to said light guide plate, and having a light emitting side, spaced from the light entrance side, said prismatic surface having repeated projections with slopes inclined with respect to the plane of said light control element, at least part of said slopes defining a light diffusible surface to generate diffused light while the light emanating from the light guide plate is radiating within the light control element from the light entrance side towards the light emitting side, such that a surface of the light emitting side is illuminated in a substantially uniform manner, reducing light effects of the reflecting sheet.

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the art the obviousness of the invention as set forth in the claims on appeal. Accordingly, we affirm.

Appellants have indicated that for purposes of this appeal the claims will all stand or fall together as a single group [brief, page 4]. Consistent with this indication appellants have made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims before us will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Therefore, we will consider the rejection against independent claim 4 as representative of all the claims on appeal.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some

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teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose

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not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

With respect to representative independent claim 4, the examiner finds that the prior art optical device as shown in Figures 11 and 12 of the application contains all the claim limitations except that it does not disclose that only part of the slopes of each prism defines a diffusing surface for the purpose of generating a diffused light in a substantially uniform manner and simultaneously reducing the effects of the reflecting plate. The examiner cites Ishikawa as teaching a light control plate having a roughened prismatic configuration of the type recited in claim 4. The examiner finds that it would have been obvious to the artisan to modify the prior art device to have the roughened prismatic configuration as taught by Ishikawa [answer, pages 3-5].

Appellants argue that the prism sheet of Ishikawa does not perform the uniform pattern of illumination operation as asserted by the examiner. Appellants argue that Ishikawa teaches a different type of side type light display device which has two light sources and no angled light plate. Appellants also argue that the light illumination systems of Ishikawa and the prior art are different. Appellants also assert that there is no

recognition of the problem solved by the claimed invention in Ishikawa. Finally, appellants argue that there is no motivation to combine the teachings of Ishikawa with the admitted prior art because the problems solved by Ishikawa are not present in the admitted prior art [brief, pages 6-9].

The examiner responds that Ishikawa teaches that roughening one of the two slopes of a prism provides a more uniform light distribution after light passes through such a prism. The examiner also responds that the combined teachings of the admitted prior art and Ishikawa would have the effect of reducing the effect of the reflector in the surface light source device. Finally, the examiner responds that the modification of the admitted prior art is suggested by Ishikawa in order to provide a more uniform light distribution [answer, pages 5-8].

Appellants respond that there is no support on this record to suggest that the roughened prism feature of Ishikawa should be imported into the admitted prior art. Appellants reiterate that the problems solved by Ishikawa are not present in the admitted prior art so that there is no need to make the proposed modification. Finally, appellants argue that the modification proposed by the examiner comes only from an improper attempt by the examiner to reconstruct the invention in hindsight

[reply brief].

We will sustain the examiner's rejection of representative claim 4, and therefore, of all the claims on appeal. As noted by the examiner, the admitted prior art (Figures 11 and 12) teaches the invention of claim 4 except for the recitation that at least part of the slopes of the prismatic surface define a light diffusible surface to generate diffused light. Figures 11 and 12 teach a prismatic surface that does not diffuse light (element 5) followed by a diffuser (element 6). As also noted by the examiner, Ishikawa teaches that a roughened or coarsened slope on the prismatic surface operates to diffuse light. Appellants also disclose that such roughened slopes operate to diffuse light. We note that the roughened slopes of the prismatic surface 12 in Figure 2 of the application allow the diffuser of the admitted prior art to be removed. We are of the view that it would have been obvious to the artisan to roughen the slopes of the prismatic surface shown in the admitted prior art of Figures 11 and 12 so that the diffuser sheet 6 can be removed. We find it clearly known in the relevant art that a roughened surface converts directed light into diffused light.

The fact that Ishikawa and the admitted prior art offer no recognition of the problem solved by appellants is not

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dispositive. The test for obviousness is whether the references would have suggested doing what appellants have done. In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Thus, the absence of express suggestion or motivation in the applied prior art is not alone determinative. The prior art need not suggest solving the same problem set forth by appellants. In re Dillon, 919 F.2d 688, 692-693, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990) (en banc) (overruling in part In re Wright, 848 F.2d 1216, 1220, 6 USPQ2d 1959, 1962 (Fed. Cir. 1988)), cert. denied, 500 U.S. 904 (1991). As noted above, we find sufficient motivation on this record to combine the teachings of the admitted prior art and Ishikawa so that the diffusion plate of the admitted prior art can be removed and its function assumed by the roughened slopes of the prismatic surface as taught by Ishikawa.

In summary, we are not persuaded by appellants' arguments that the examiner's rejection is in error. Therefore, the decision of the examiner rejecting claims 4-7 and 9-11 is affirmed.

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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

JERRY SMITH)	
Administrative Patent Judge)	
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HOWARD B. BLANKENSHIP)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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MAHSHID D. SAADAT)	
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