

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VYACHESLAV B. BIRMAN, CHRISTIAN TANGUY,
WERNER ECKARDT, and SHIRLEY YU

Appeal 2008-2490
Application 11/030,377
Technology Center 2800

Decided: August 29, 2008

Before BRADLEY R. GARRIS, TERRY J. OWENS, and
ROMULO H. DELMENDO, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal from a rejection of claims 1 and 3-15.

Claim 16, which is the only other pending claim, stands objected to but allowable if rewritten in independent form.

THE INVENTION

The Appellants claim a display and a method for illuminating the display. Claims 1 and 12, which claim the display, are illustrative:

1. A display comprising:

a display that shows a desired color of light; and

two single-colored light sources selected to produce light corresponding to said desired color of light when light from only said two single-colored light sources mix, wherein said two single-colored light sources produce said light within a predetermined color tolerance of said desired color of light.

12. An illuminated display, comprising:

a graphic that is illuminated with a color corresponding to a desired color within a selected tolerance; and

only two light sources capable of collectively producing colors within a selected color spectrum that includes the desired color, the light sources producing light that illuminates the graphic with the corresponding color.

THE REFERENCES

Kano	US 3,875,456	Apr. 1, 1975
Sell	US 5,047,761	Sep. 10, 1991

THE REJECTIONS

The claims stand rejected as follows: claims 3, 4, and 10 under 35 U.S.C. § 112, first paragraph, enablement requirement; claims 1, 3-5, and 8-11 under 35 U.S.C. § 102(b) over Kano; and claims 6, 7, and 12-15 under 35 U.S.C. § 103 over Kano in view of Sell.

OPINION

We reverse the rejection under 35 U.S.C. § 112, first paragraph, and affirm the rejections under 35 U.S.C. §§ 102(b) and 103.

Rejection under 35 U.S.C. § 112, first paragraph

A specification complies with the 35 U.S.C. § 112, first paragraph, enablement requirement if it allows those of ordinary skill in the art to make and use the claimed invention without undue experimentation. *See In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993).

The Examiner argues that the Appellants' original disclosure lacks adequate enabling support for the tolerances of ± 0.05 in claims 3 and 10, and ± 0.02 in claim 4 (Ans. 4). The Examiner argues that the Appellants have not enabled the leap from the tolerances of about 0.4 in U.S. 2003/0147242 A1 to Stopa (¶ 0014), and US 7,118,261 to Fredericks et al. (col. 5, ll. 5-7), to the much narrower tolerances in claims 3, 4, and 10 (Ans. 8).

The Appellants state that their "controller 29 changes the intensities of the two colored light sources 18, 20 to illuminate the vehicle graphic 12 with one of at least three different desired colors using known techniques" (Spec. ¶ 0022), and that "[t]he choice of intensities depends on the colors of the light sources and the desired color of light 26 using known color relationships and known control techniques." *See id.* The Appellants state that "such tight tolerances [± 0.05] are not possible with known displays using three or more light sources" (Spec. ¶ 0027).

Thus, the record indicates that the tolerances of ± 0.05 recited in claims 3 and 10, and ± 0.02 recited in claim 4, are achieved by using conventional control techniques applied to only two light sources instead of three or more light sources.

The Examiner has not provided evidence or technical reasoning which shows that one of ordinary skill in the art could not have obtained, through

the use of no more than routine experimentation, a tolerance of ± 0.05 or ± 0.02 by applying conventional control techniques to two light sources. The references relied upon by the Examiner disclose more than two light sources. Fredericks uses two amber emitters for each cyan emitter (col. 4, ll. 52-53; Fig. 1), and Stoppa uses an array of light emitting diodes (§§ 0005, 0012; Fig. 1).

Thus, the Examiner has not established a *prima facie* case of lack of enablement of the inventions claimed in the Appellants' claims 3, 4 and 10.

Rejection under 35 U.S.C. § 102(b)

The Appellants argue the claims in the following groups: 1) claims 1 and 5; 2) claims 3, 4, and 10; and 3) claims 8-11 (Br. 5-6).¹ We therefore limit our discussion to one claim in each group, i.e., claims 1, 3, and 8. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Claims 1 and 8

Kano discloses “multi-color semiconductor lamps capable of emitting light of many different colors from what appears to be a single light source” (col. 1, ll. 6-8). Kano teaches that “[a]n ideal multi-color indicating device or lamp would be one from which light of two or more colors can be emitted from an apparently single light source with the color selected by simple electric control” (col. 1, ll. 53-56). Kano discloses:

The light emitting diode A is energized to emit light of its chosen color by impressing an appropriate voltage between the input terminal leads **3** and **4** and the light emitting diode **B** is energized to emit light of its chosen color by impressing an appropriate voltage between the input terminal leads **4** and **5**. When these diodes are so energized, either one at a time or concurrently, the resulting light

¹ Although the Appellants address claim 11 separately, they do not provide a separate argument as to the patentability of that claim (Br. 6).

emitted thereby is scattered in passing through the light scattering layer **2** so that all such emissions transmitted to the exterior of the casing **1** through the lens **C** appear to come from one and the same source. [col. 2, l. 65 – col. 3, l. 8]

* * *

Also, colored light resulting from the blending of the individual colors from the respective light emitting diodes may be obtained by causing two or more of the said light-emitting diodes to simultaneously emit light. [col. 3, ll. 31-34]

In Kano's examples the desired color emitted by each diode is obtained by impressing the appropriate voltage and current between input terminal leads 3 and 4.

Regarding claim 1 the Appellants argue that Kano does not mention a tolerance and does not disclose any control beyond turning the diodes on and off which, the Appellants argue, is not control within a predetermined tolerance (Br. 5; Reply Br. 2-3). With respect to claim 8 the Appellants argue that “*Kano* does not incorporate control for the purpose of producing light within a desired tolerance, as claimed. The light sources of *Kano* are either on or off, which does not suggest control within a selected tolerance as recited in claim 8” (Br. 6).

As pointed out above regarding the rejection under 35 U.S.C. § 112, first paragraph, the record indicates that the Appellants' desired color tolerance is achieved by using conventional control techniques applied to only two light sources instead of three or more light sources. Kano indicates that he uses conventional electronic control to input a particular voltage and current to each of two diodes, each producing a different light color, such that the colors are blended to produce a desired color (col. 1, ll. 54-57; Examples). Because, like the Appellants' control technique, the control

technique indicated by Kano is a conventional control technique, it reasonably appears that, like the Appellants, Kano achieves “a predetermined color tolerance of said desired color of light” as required by the Appellants’ claim 1 and “a color corresponding to the desired color of light within the selected tolerance” as required by the Appellants’ claim 8.

Hence, we are not persuaded of reversible error in the rejection of claim 1 and claim 5 that stands or falls therewith, or claim 8 and claims 9-11 that stand or fall therewith.

Claim 3

Claim 3, which depends from claim 1, requires that “said desired color of light is expressible in unitless X and Y coordinates in a chromaticity diagram and said predetermined tolerance for each of the unitless X and Y color coordinates is ± 0.05 of coordinates for the desired color of light.”

The Appellants argue that “Appellant’s controller 29 (Figures 1, 3, 4) controls the intensities of light sources to produce the desired tolerance. *Kano* discloses no such controller for controlling intensity and therefore does not appear to be capable of achieving the claimed tolerances” (Br. 5-6).

The Appellants’ claim 3 recites that the desired light color “is expressible” in a particular manner, but does not require that the desired color of light is actually expressed in that manner. What the claim requires is capability of the display to show a color of light within a predetermined color tolerance of ± 0.05 when the color of light is expressed in unitless X and Y color coordinates. As pointed out above regarding the rejection under 35 U.S.C. § 112, first paragraph, the record indicates that the Appellants’ color tolerance is achieved by using conventional control techniques applied to only two light sources instead of three or more light sources. Therefore,

Kano's indication that he uses conventional electronic control to input a particular voltage and current to each of two diodes, each producing a different light color, such that the colors are blended to produce a desired color (col. 1, ll. 54-57; Examples), indicates that Kato's display is capable of obtaining the same color tolerance as the Appellants' display.

We therefore are not convinced of reversible error in the rejection under 35 U.S.C. § 102(b) of claim 3 and claims 4 and 10 that stand or fall therewith.

Rejection under 35 U.S.C. § 103

The Appellants argue the claims in the following groups: 1) 6, and 2) 7 and 12-15 (Br. 6-8; Reply Br. 3-4). Hence, we limit our discussion to claim 6 and one claim in the other group, i.e., claim 12. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Claim 6

Claim 6, which depends from claim 1, requires "a housing that directs said light from said two light sources onto a portion of the display comprising a vehicle graphic, said housing including an angled extension extending over said two colored light sources, and said angled extension including a reflective surface facing said two colored light sources for mixing light from said two colored light sources."²

The Appellants argue that Kano's casing (1) extends laterally to the sides of the light sources (Fig. 2), not over the light sources (Br. 7).

The Examiner argues that "[w]hile Kano does disclose these sides as extending laterally it is seen by the Examiner that these sides also extend

² Because the rejection of claim 6 does not rely upon Sell (Ans. 6-7, 10), it is not apparent why Sell is included in the rejection of that claim.

over the light source by extending upwardly with the ends being situated above the light sources and therefore over the light sources” (Ans. 10).

The Appellants respond that the “Examiner is blurring the distinction between the words ‘above’ and ‘over,’ which have distinct meanings” (Reply Br. 4).

During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the Specification, as the claim language would have been read by one of ordinary skill in the art in view of the Specification. *See In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548 (Fed. Cir. 1983).

The Appellants exemplify an inclined reflective surface (50) that “extends directly over the two colored light sources 18, 20” (Spec. ¶ 0031; fig. 4). Unlike that disclosure, the Appellants’ claim 6 recites “over”, not “directly over”. The Appellants do not define “over”, so we use the ordinary meaning of that term, which is “above”,³ where “above” means “in or to a higher place”.⁴ Because Kano’s casing 1 is angled and in a higher place than diodes A and B (Fig. 2), the casing is “an angled extension extending over said two colored light sources” as required by the Appellants’ claim 6.

Therefore, we are not persuaded of reversible error in the rejection of claim 6.

Claim 12

Sell discloses a pointer instrument for a motor vehicle instrument panel (col. 1, ll. 7-12). The pointer instrument has a light guide (3) for

³ Hence, the Appellants’ argument that “above” and “over” have distinct meanings (Reply Br. 4) is not well taken.

⁴ See *Webster’s New Collegiate Dictionary* 4, 817 (G. & C. Merriam 1973).

illuminating a dial (4) (col. 1, ll. 7-8). The light guide comprises two light-emitting diodes (10, 11) that “light up in different colors, depending on the control applied to them” (col. 2, ll. 55-58).

The Examiner argues that “it would have been obvious to one of ordinary skill a[t] the time the invention was made to use the lamp apparatus of Kano as a lighting means for a vehicle graphic as taught by Sell because Kano’s device is compact enough to be used as a vehicle display” (Ans. 7).

The Appellants argue (Br. 7):

Just because the lamp apparatus of *Kano* might be compact is not a reason to use it in a vehicle. Indeed, *Sell* already includes a compact lighting device (light sources 10, 11 and light guide 3) for illumination. The Examiner has not established that the device of Kano would be any more compact than the lighting device already used in *Sell*.

One of ordinary skill in the art would have been led, through no more than ordinary creativity, to use Kano’s lighting device (sized appropriately) in Sell’s instrument to provide the benefit of emitting light from sources of different colored light that appears to come from a single light source (Kano, col. 1, ll. 6-8, 54-57; col. 3, ll. 2-8). *See KSR Int’l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (In making the obviousness determination one “can take account of the inferences and creative steps that a person of ordinary skill in the art would employ”).

The Examiner argues that “one of ordinary skill in the art would have been motivated to apply the vehicle graphic of Sell to the apparatus of Kano for indicating vehicle parameters in different colors to signal given conditions as taught by Sell (Col 1, lines 59-61)” (Ans. 10).

The Appellants argue that “[t]he light of Kano is a relatively large lamp for a traffic signal device (col. 1, line 11). One would not use this large lamp to illuminate a vehicle display because vehicle displays are relatively compact and the intensity of the lamp would likely be too great for a vehicle graphic” (Reply Br. 4).

Kano teaches that a traffic signal lamp is a typical example of a multicolor indicating device, but also teaches that such devices have extensive other applications (col. 1, ll. 10-11, 17-26). One of ordinary skill in the art would have been led to use Sell’s pointer illuminated instrument as one of the extensive applications for which Kano indicates Kato’s multicolor indicating device is suitable, in order to provide a pointer illuminated instrument having the benefit of multiple light sources that provide different light colors that appear to come from a single light source as taught by Kano (col. 1, ll. 6-8, 54-57; col. 3, ll. 2-8).

For the above reasons we are not convinced of reversible error in the rejection of claims 7 and 12-15.

DECISION

The rejection of claims 3, 4, and 10 under 35 U.S.C. § 112, first paragraph, enablement requirement, is reversed. The rejections of claims 1, 3-5, and 8-11 under 35 U.S.C. § 102(b) over Kano, and claims 6, 7, and 12-15 under 35 U.S.C. § 103 over Kano in view of Sell are affirmed.

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

AFFIRMED

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