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The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MATTEL INCORPORATED

Appeal No. 1999-2373
Reexamination Control No. 90/004,769¹

ON BRIEF

Before STONER, Chief Administrative Patent Judge and NASE and
BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 20, which are all of the claims pending in this proceeding.

¹ Request filed September 29, 1997 by Matsui International Company Incorporated for the reexamination of U.S. Patent No. 4,917,643, issued April 17, 1990, based on Application No. 07/067,519, filed June 26, 1987. A related appeal (Appeal No. 1999-2374) has been filed in Reexamination Control No. 90/004,770 for the reexamination of U.S. Pat. No. 5,503,583, issued on April 2, 1996, based on Application No. 08/422,632, filed April 14, 1995. According to the appellant, Application No. 08/422,632 is a continuation of Application No. 07/918,882, now abandoned, which is a continuation of Application No. 07/790,136, now abandoned, which is a continuation of Application No. 07/474,654, now abandoned, which is a continuation of Application No. 07/167,614, now abandoned, which is a continuation-in-part of Application No. 07/067,519.

We AFFIRM-IN-PART and enter new grounds of rejection pursuant to 37 CFR § 1.196(b).

BACKGROUND

The appellant's invention relates to a toy vehicle comprising a body coated with thermochromic paint which changes color with temperature to give the vehicle body a different appearance. An understanding of the invention can be derived from a reading of exemplary claims 1, 9, 10, 11, 12 and 20, which appear in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner as evidence of obviousness are:

Dehner	3,942,285	Mar. 9, 1976
O'Brian	4,142,782	Mar. 6, 1979
Kito et al. (Kito)	4,421,560	Dec. 20, 1983
Kimura (international publication)	WO 86/02855	May 22, 1986
Adachi (Japanese patent document)	50-90795	Jul. 31, 1975
Fukui (Japanese patent document)	60-61088	Apr. 27, 1985 ²

"Nikko" drawings submitted by Matsui International Company Incorporated.³

² In determining the teachings of Adachi and Fukui, we have relied on the translations thereof submitted with the reexamination request filed September 29, 1997.

³ These drawings, submitted with the reexamination request, are referred to therein as "the Nikko publication."

The following rejections are before us for review.

1. Claims 1, 2, 6 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Fukui.

2. Claims 3 through 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Fukui, as applied above, and further in view of the "Nikko" drawings.

3. Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Fukui, as applied above, and further in view of Dehner.

4. Claim 9 stands rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Dehner.

5. Claims 10 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Kimura.

6. Claims 12 through 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of O'Brian.

7. Claim 20 stands rejected under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Kito.

The complete text of the examiner's rejections and response to the argument presented by the appellant appears in the answer (Paper No. 16), while the complete statement of the appellant's argument can be found in the brief (Paper No. 15) and reply brief (Paper No. 17).

OPINION

In rejecting claims 1, 2, 6 and 8 under 35 U.S.C. § 103, the examiner has relied upon the combined teachings of Adachi and Fukui. Independent claim 1 requires, *inter alia*, that the "thermochromic paint means" include thermochromic material capable of changing color with temperature variation "to vary said initial appearance of said vehicle from a dirty car to a clean car and vice versa."⁴

In proceedings before it, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

In its ordinary usage, "dirty" connotes a color which is "sullied [discolored or spotted]; clouded; muddied."⁵ Thus, from our viewpoint, any thermochromic material that is capable of

⁴ We note that the use of the term "car" in the last lines of claims 1, 4 and 6 are inconsistent in scope with the more broad recitation of a "vehicle" elsewhere in the claim. Either "vehicle" or "car" should be changed for consistency. In any event, this informality is deserving of correction in any further prosecution before the examiner.

⁵ Webster's New International Dictionary, Second Edition (1954).

changing from one color to a relatively lighter, brighter or clearer color with variation in temperature would satisfy the above-noted claim limitation. This interpretation is consistent with the appellant's patent specification (column 3, second full paragraph), which indicates that the effect of varying the appearance of the vehicle from dirty to clean may be accomplished by utilizing a thermochromic material which changes from a color such as brown to simulate a "dirty look" to either a lighter, brighter or transparent color to simulate a "clean look."

Adachi discloses a toy vehicle, for use in a bath, coated with thermochromic paint on portions or the entirety thereof (translation, page 2). As shown in Figures 1 through 3, the thermochromic paint may be applied so as to make marks and designs or patterns appear with an increase in temperature caused by placing the toy vehicle in warm bath water. Adachi's teaching (translation, page 2) that the color change can be used to indicate when the bath water has become less warm or hot makes clear that Adachi contemplates the use of a thermochromic material which is capable of undergoing reversible color change.

The examiner finds that Adachi "lacks a specific appearance of dirty to clean and reverse" but argues that it would have been obvious to one of ordinary skill in the art to have provided the Adachi vehicle with an initial appearance of dirty changeable

with temperature variation to a clean appearance, "as taught by Fukui, in order to provide a child with a correctable deficiency and thereby teach the child desirable habits" (answer, page 4).

We do not agree that Fukui would have provided such motivation. Fukui discloses a makeup doll comprising portions coated with color-change material which changes color upon heating by a pen-shaped heater to simulate application of makeup or, for hospital play, ailments. Fukui does not mention simulation of washing (or change from dirty to clean) and would not have suggested any particular color change on a toy vehicle.

However, one of ordinary skill in the art reading the disclosure of Adachi would have been motivated, even without the teachings of Fukui, to use a thermochromic paint that undergoes a dramatic and noticeable color change to maximize the visual effect and enjoyment of the toy. In our opinion, a change from a dark color, such as brown or black, to a light color, such as white, and vice-versa, would have been one such dramatic color change immediately envisaged by one of ordinary skill in the art. It follows then that the teachings of Adachi would have suggested to one of ordinary skill in the art the use of a thermochromic paint which undergoes a reversible color change between a dark color, such as brown or black, which is considered a "dirty"

appearance, and a light color, such as white, which is considered a "clean" appearance, as used in the claim.

For the foregoing reasons, we are satisfied that Adachi suggests the subject matter of claim 1 to establish a *prima facie* case of obviousness. Since claims 2 and 8 have not been argued separately of claim 1 from which they depend, they therefore stand or fall with claim 1. See In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987).⁶

As to claim 6, while Adachi does not disclose the use of a thermochromic paint which changes from a colored opaque material to a transparent material, Adachi does disclose that children "will enjoy playing with [the toy vehicle] if some marks and designs/patterns appear through adding temperature" (translation, page 2). On pages 4 and 5 of the reply brief, the appellant argues, in effect, that Adachi's use of the term "appear" is not a disclosure of using thermochromic paint to make designs/patterns appear and disappear completely or appear from an "invisible," "hidden," "unseen" or "concealed" state. We are not persuaded by that argument. The term "appear" means "to come or be in sight; to be in view; to become visible."⁷ Therefore,

⁶ Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable. 37 CFR § 1.192(c)(7).

⁷ Webster's New International Dictionary, Second Edition (1954).

we are satisfied that one of ordinary skill in the art would have understood the language of Adachi to mean that the designs/patterns become visible (i.e., from a previous state of invisibility) upon changing the temperature of the toy vehicle.

However, even having concluded that Adachi teaches or suggests using a thermochromic paint that is capable of undergoing color change with temperature change to make designs/patterns appear and disappear, we cannot agree with the examiner's assertion (answer, page 7) that this is sufficient to "effectively [anticipate]" the use of a thermochromic paint which changes between colored opaque and transparent to achieve this effect. With regard to whether this would have been obvious, rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). In making this rejection, the examiner has not provided any evidence that thermochromic paints which change reversibly between colored opaque materials and transparent materials were within the common knowledge of the art at the time of the

appellant's invention (note reply brief, pages 5 and 6). Thus, we agree with the appellant that the references applied by the examiner are not sufficient to establish a *prima facie* case of obviousness of the claimed invention and are thus constrained to reverse the standing rejection of claim 6.⁸

In rejecting claims 3 through 5 under 35 U.S.C. § 103, the examiner has relied upon the combined teachings of Adachi, Fukui and the "Nikko" drawings. Consistent with 35 U.S.C. §§ 301 through 303 and 37 CFR § 1.552, prior art rejections of claims in reexamination proceedings must be based on patents or printed publications only. At issue in the appeal of this rejection is whether the "Nikko" drawings are a "printed publication" as used in 35 U.S.C. §§ 102(a) and (b) and 301 through 303.

In order to establish that a reference is a "printed publication" as used in these sections, the proponent of an alleged publication must show that prior to the critical date the reference was sufficiently accessible, at least to the public interested in the art, so that such a one by examining the reference could make the claimed invention without further

⁸ In arriving at this conclusion, we have considered the disclosure in Fukui (translation, page 4) of use of a color-change ink which changes from "colorless" but have determined that "colorless" does not address the degree of opacity or transparency of a material, but rather, addresses a material's reflectance of light of a particular wavelength. Additionally, Kito (column 2, lines 63 to 68) illustrates the distinct uses of the terms "colorless" and "transparent" in the art.

research or experimentation. In re Hall, 781 F.2d 897, 899, 228 USPQ 453, 455 (Fed. Cir. 1986). Factors bearing on whether a document was published include the number of copies made, availability, accessibility, dissemination, and even intent. Garrett Corp. v. United States, 422 F.2d 874, 878, 164 USPQ 521, 524 (Ct. Cl.), cert. denied, 400 U.S. 951 (1970). Further, we agree with the appellant that the initial burden of establishing a document to be a printed publication under the patent laws is on the proponent of the document. See Ex parte GPAC Inc., 29 USPQ2d 1401, 1412 (Bd. Pat. App. & Int. 1993), aff'd on other grounds, 57 F.3d 1573, 35 USPQ2d 1116 (Fed. Cir. 1995). The proponent of the "Nikko" drawings as a printed publication, Matsui International Company Incorporated, has failed to meet its burden in this regard.

The affidavits of Masa Matsui and Goro Shimizu⁹ merely establish that the "Nikko" drawings or similar drawings existed as early as 1985 but are insufficient to establish that they constitute a "printed publication" within the meaning of sections 102 and 301 through 303. The statements on page 2 of the Matsui declaration regarding the circulation of these drawings to other companies without obligation to maintain the contents secret do

⁹ These affidavits were filed by the third party requester, Matsui International Company Incorporated, on September 29, 1997 with the request for reexamination.

not appear to be based on firsthand knowledge and are not substantiated by statements from either the source of the drawings or the other alleged recipients. Further, the unsubstantiated statement in the Shimizu affidavit that "I believe I received this document from the company Nikko" (emphasis added) is insufficient to establish with any certainty the actual source of the document and certainly lacks any indication of the intent and conditions under which the drawings were delivered to Goro Shimizu.

For the foregoing reasons, it is our opinion that the evidence presented in this proceeding fails to establish that the "Nikko" drawings are a "printed publication" as used in sections 102 and 301 through 303. Accordingly, the teachings therein cannot be relied upon as evidence of obviousness of the claimed invention in this proceeding. As the examiner's rejection of claims 3 to 5 is grounded on the teachings of the "Nikko" drawings, we are constrained to reverse this rejection.

As to claims 7¹⁰ and 9, the examiner concedes that Adachi lacks the vehicle body being made out of metal (answer, page 4). Rather, Adachi discloses plastic as the vehicle material. However, the examiner's position is that it would have been

¹⁰ As claim 7 depends from claim 1, our findings discussed *supra* with regard to claim 1 apply to claim 7 as well.

obvious to provide the Adachi toy with a metal body, as taught by Dehner, "in order to make the toy more durable and able to withstand rough treatment." The appellant argues that (1) there is no suggestion in Adachi that the plastic toy cars are not sufficiently durable and (2) the toy cars of Adachi would no longer function for their intended purpose as a bath toy if constructed of metal, because they would not float.

As to the appellant's first argument, Dehner teaches that "[m]iniature toy vehicles commonly have a body provided with a plastic insert locked within a metal outer shell" (column 1, lines 7 and 8). From our viewpoint, this disclosure would have provided ample motivation for one of ordinary skill in the toy art to have provided a metal body on the toy vehicle of Adachi, as this would have involved the mere substitution of one conventional toy material with another conventional toy material. As to the appellant's second argument, even assuming, *arguendo*, that the toy car of Adachi would not float if provided with a metal body, a position with which we do not necessarily agree, it is not apparent to us why that would make it unsuitable for use as a bath toy. From our viewpoint, a child could derive as much enjoyment from running a toy car along the bottom and sides of a bath tub as from floating a vehicle on the water. Thus, we are satisfied that the combined teachings of the applied references

would have suggested the subject matter of claims 7 and 9 to establish a *prima facie* case of obviousness.

As to claims 10 and 11, the examiner concedes that Adachi lacks a teaching of the provision of thermochromic letters or numbers, but argues that it would have been obvious to have provided the Adachi toy with letters or numbers in view of the teachings of Kimura (answer, page 5). Kimura discloses provision of thermochromic inks on fabric articles to contain a special message hidden under normal ambient conditions which becomes apparent only at elevated temperatures. An exemplary message is "HAPPY BIRTHDAY" as illustrated in Figure 3. While Kimura only specifically discloses use of the thermochromic inks on fabric materials, such as washcloths, towels or fabric covered stuffed toys (pages 5 and 7), Kimura does recognize that the hidden thermochromic message would be desirable when applied to "bath related articles where normal temperatures are elevated above the cross-over point of the ink 18" (page 7) and contemplates the use of the invention "in conjunction with small children" (page 1). In our opinion, this disclosure of Kimura would have provided ample motivation for one of ordinary skill in the art to have formed the thermochromic designs/patterns on the Adachi bath toy as a pattern of letters and/or numbers to form a hidden message,

such as "HAPPY BIRTHDAY" or "HAPPY 4th BIRTHDAY," for example, which would appear when the toy vehicle is placed in warm water.

Moreover, we take official notice¹¹ that the provision of numbers and letters on toy vehicles to simulate race car numbers or words identifying taxi, police and fire vehicles, for example, was extremely well known at the time of the appellant's invention. Thus, the provision of thermochromic numbers or letters on the Adachi vehicle to simulate such vehicles would have been *prima facie* obvious, even without the teachings of Kimura.

Accordingly, we are satisfied that the combined teachings of the applied references would have suggested the subject matter of claims 10 and 11 to establish a *prima facie* case of obviousness.¹²

Turning now to the examiner's rejection of claims 12 to 19 under 35 U.S.C. § 103 as being unpatentable over Adachi in view of O'Brian, the examiner finds that "Adachi lacks the use of dual thermochromic paints" but asserts that it would have been obvious to have provided Adachi with multiple thermochromic paints, as

¹¹ See In re Malcolm, 129 F.2d 529, 533, 54 USPQ 235, 238 (CCPA 1942).

¹² As discussed *infra*, we have designated the affirmance of this rejection as a new ground of rejection under 37 CFR § 1.196(b).

taught by O'Brian, "in order to enable complex designs with more than one color at each temperature and change" (answer, page 5).

Initially, we note that claim 12 does not require that the "first thermochromic material" and the "second thermochromic material" be either the same material or different materials. Adachi does disclose a toy vehicle comprising a body having two distinct portions (2), as seen in Figures 1 to 3, colored with thermochromic paint and, thus, discloses all of the limitations of claim 12, thereby anticipating the claim under 35 U.S.C. § 102(b).¹³ A disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C. § 103, for "anticipation is the epitome of obviousness." Jones v. Hardy, 727 F.2d 1524, 1529, 220 USPQ 1021, 1025 (Fed. Cir. 1984). See also In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974). Thus, the applied references are certainly sufficient to establish a *prima facie* case of obviousness with regard to claim 12.

With regard to claims 13 to 15 and 17 to 19, the appellant's only argument is that O'Brian is not analogous prior art (brief, pages 19 to 25). We do not agree.

¹³ Note the new ground of rejection of claim 12 *infra*.

The test for non-analogous art is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it logically would have commended itself to an inventor's attention in considering his problem because of the matter with which it deals. In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992). In the present instance, both the appellant's patent and O'Brian are within the same field of thermochromic display. Moreover, the embodiment of Figure 5 of the patent is directed to the use of multiple thermochromic materials having different properties to create a desired changing design and O'Brian teaches the use of two or more different thermochromic compositions so as to create a display and obtain changes in the appearance of such display which are visually stimulating and/or attractive from an aesthetic sense (column 1, lines 52 to 58). Thus, even if O'Brian is not considered to be within the same field of endeavor as the appellant's patent, O'Brian falls at least into the latter category of the Wood test, and logically would have commended itself to an artisan's attention in considering the appellant's

problem (i.e., how to create an interesting changing design). Thus, we conclude that O'Brian is analogous art.

We are not dissuaded from this conclusion by the fact that O'Brian does not specifically address the use of the disclosed invention to toy vehicles. Nor are we persuaded that O'Brian's disclosure that the thermochromic materials which are the subject of O'Brian's invention undergo color change at temperatures "somewhat above normal ambient temperature" (column 4, line 13) describes "vastly different conditions" than the color change in reaction to the warmth of a child's hands of the appellant's invention. The human body temperature is above normal ambient temperature.

Moreover, although Adachi does not disclose whether the two regions of thermochromic paint are coated with the same or different thermochromic materials, one of ordinary skill in the art would have envisaged either as an option, depending on the desired visual effect. The teachings of Adachi, therefore, are sufficient to have suggested the subject matter of claims 13 to 15 and 17 to 19, even without the teachings of O'Brian.

For all of the foregoing reasons, we are satisfied that, in light of the appellant's arguments, the combined teachings of Adachi and O'Brian are sufficient to have suggested the subject

matter of claims 13 through 15 and 17 through 19 to establish a *prima facie* case of obviousness.

As to claim 16, we agree with the appellant (brief, page 24) that neither Adachi nor O'Brian discloses a material which changes from colored opaque to transparent. As the examiner has not provided any evidence in making this rejection that thermochromic paints which change reversibly between colored opaque materials and transparent materials were within the common knowledge of the art at the time of the appellant's invention, we are constrained to reverse the examiner's rejection of claim 16.

Turning finally to the examiner's rejection of claim 20 under 35 U.S.C. § 103 as being unpatentable over Adachi in view of Kito, the appellant does not challenge the sufficiency of the combined references to establish a *prima facie* case of obviousness. Rather, the appellant's only argument (brief, page 25) is that the *prima facie* case is rebutted by the evidence of commercial success and copying by others discussed *infra*.

As discussed above, Adachi teaches or suggests using a thermochromic paint that is capable of undergoing color change with temperature change to make designs/patterns appear and disappear, but does not disclose use of a thermochromic paint capable of changing between colored opaque and transparent. Kito establishes that thermochromic materials having the capability to

reversibly change colors between colored opaque and transparent were within the knowledge of one of ordinary skill in the art at the time of the appellant's invention. In our opinion, one of ordinary skill in the art, with the knowledge of the teachings of both Adachi and Kito, would have immediately envisaged the use of thermochromic paint which changes reversibly between colored opaque and transparent as a suitable means to make the designs/patterns of Adachi appear and disappear.

For the foregoing reasons, we are satisfied that the combined teachings of Adachi and Kito would have suggested the subject matter of claim 20 to establish a *prima facie* case of obviousness.

Having concluded, for the reasons discussed above, that the teachings of the applied references are sufficient to have suggested the subject matter of claims 1, 2, 7 through 15 and 17 through 20 to establish a *prima facie* case of obviousness, we turn now to the appellant's rebuttal evidence, which purports to show commercial success of the claimed invention, in the form of a product line marketed as Hot Wheels Color Racers, and copying by others. This evidence includes the declarations by Matthew C. Bousquette, Keith Hippely, Craig A. Apatov and two declarations by Joseph S. Whitaker referred to on pages 11 and 12 of the

brief, and a 1998 Mattel Toys catalog, submitted with Paper No. 10 in this proceeding.

For commercial success of a product embodying a claimed invention to have true relevance to the issue of nonobviousness, that success must be shown to have in some way been due to the nature of the claimed invention, as opposed to other economic and commercial factors unrelated to the technical quality of the patented subject matter. Cable Elec. Prods., Inc. v. Genmark, Inc., 770 F.2d 1015, 1027, 226 USPQ 881, 888 (Fed. Cir. 1985). With regard to the Color Racers product line, the Apatov affidavit (page 2) evidences a substantial advertising effort in 1988 (four times the resources directed to 1/64 Scale Basic vehicles, whose dollar sales were slightly higher than those for the Color Racers vehicles in 1988). In view of these statistics, it is not clear that any success of the Color Racers product line in 1988 was due to features of the claimed invention and not to the extensive advertising of these toy vehicles. Further, the evidence does not establish that the sales of the Color Racers were not merely replacements of sales of the basic Hot Wheels vehicles that would have occurred in the absence of the more extensive advertising of the Color Racers. That Mattel reduced its advertising of Color Racers in 1989, to about half the 1988 level as a percentage of total advertising dollars for Hot Wheels

products, is of little moment, absent a showing that continued high sales during the first six months of 1989 were not due to the extensive advertising campaign of 1988. See Pentec, Inc. v. Graphic Controls Corp., 776 F.2d 309, 316, 227 USPQ 766, 770 (Fed. Cir. 1985). The sales estimates for the rest of 1989 (Apatov declaration, page 3) are, of course, merely conjecture and, as such, are entitled to no weight. The appellant has not substantiated this conjecture with actual sales figures for 1989 and has not provided any statistics of sales beyond 1989 to show continued success of the Color Racers.

Moreover, it is well settled that evidence presented to rebut a *prima facie* case of obviousness must be commensurate in scope with the claims to which it pertains. In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979) and In re Tiffin, 448 F.2d 791, 792, 171 USPQ 294, 294 (CCPA 1971). See also In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983). With regard to claims 1, 2, 7, 8, 10 through 15 and 17 through 20, the appellant's evidence of commercial success and copying by others falls far short of this requirement.

Specifically, as to claims 1, 2, 7 and 8, the appellant has not submitted any evidence as to how many of the Color Racers sold comprised thermochromic material capable of changing color with temperature to change the appearance of the vehicle from

dirty to clean and vice-versa. Similarly, the record lacks evidence as to how many of the Color Racers sold comprised thermochromic paint means forming at least one letter or number, as required by claims 10 and 11, first and second body portions coated with first and second thermochromic materials, as required by claims 12 through 15 and 17 through 19, or a body portion coated with an underlying color and thermochromic paint means having the capability to change between opaque colored and transparent at least partially overlying the underlying color, as required by claim 20. In this regard, it is not apparent to us that any of the samples of the competitors' toy cars necessarily possessed any of these features.

As to claim 9, we do not find the evidence that competitors also marketed miniature die-cast metal vehicles with a color-change feature to be highly persuasive of the non-obviousness of modifying the Adachi toy vehicle to provide a vehicle body of metal, rather than plastic. It is not surprising that Mattel's competitors marketed a die cast metal color-change toy vehicle, rather than the plastic color-change toy vehicle of Adachi, as die cast metal was the industry standard for the already popular miniature toy vehicles at the time of the appellant's invention. Thus, it is only logical that competitors in the miniature die cast metal toy vehicle market would have applied the

thermochromic paint concept of the prior art to metal vehicles rather than plastic vehicles with a reasonable expectation of success. From our viewpoint, this, as opposed to any belief that metal would yield superior results to plastic, could just as easily explain why Mattel's competitors appear to have copied the appellant's claimed product rather than the plastic toy vehicle of the prior art.

Moreover, evidence of secondary considerations, such as commercial success and copying, are but a part of the "totality of the evidence" that is used to reach the ultimate conclusion of obviousness. See Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1483, 44 USPQ2d 1181, 1187 (Fed. Cir. 1997). When all of the evidence is considered, including the totality of the rebuttal evidence, it is our opinion that, on balance, the rebuttal evidence fails to outweigh the evidence of obviousness discussed above. See Id.

Therefore, the decision of the examiner rejecting claims 1, 2, 7 through 15 and 17 through 20 is affirmed. However, since the basic thrust of the affirmance of the rejections of claims 1, 2, 7, 8, 10 and 11 differs from that advanced by the examiner in support of the rejections, we designate the affirmance of these rejections as new grounds of rejection under 37 CFR § 1.196(b) in order to provide the appellant with a fair opportunity to respond

thereto. See In re Kronig, 539 F.2d 1300, 1302, 190 USPQ 425, 426-27 (CCPA 1976).

New Grounds of Rejection under 37 CFR § 1.196(b)

Pursuant to the provisions of 37 CFR § 1.196(b), we enter the following new grounds of rejection:

1. Claim 12 is rejected under 35 U.S.C. § 102(b) as being anticipated by Adachi.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Our reasons for concluding that Adachi discloses all the limitations of claim 12 are discussed *supra*.

2. Claims 3 and 5 are rejected under 35 U.S.C. § 103 as being unpatentable over Adachi.

Our findings with regard to the teachings of Adachi are discussed *supra*. We emphasize that, contrary to the examiner's finding (answer, page 4), Adachi clearly discloses (translation, page 2) coloring either a part or "the entire parts" of the toy vehicle with thermochromic paint.

While Adachi does not specify any colors for the thermochromic paint, for the reasons discussed *supra* with regard

to claim 1, the teachings of Adachi would have suggested to one of ordinary skill in the art the use of a thermochromic paint which undergoes a reversible color change between a dark color, such as brown or black, which is considered a "dirty" appearance, and a light color, such as white, which is considered a "clean" appearance, as used in the claim.

3. Claims 4, 6 and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Adachi, as applied above, in view of Kito.

As discussed above, Adachi teaches or suggests using a thermochromic paint that is capable of undergoing color change with temperature change to make designs/patterns appear and disappear, but does not disclose use of a thermochromic paint capable of changing between colored opaque and transparent. Kito establishes that thermochromic materials having the capability to reversibly change colors between colored opaque and transparent were within the knowledge of one of ordinary skill in the art at the time of the appellant's invention. Thus, one of ordinary skill in the art, with the knowledge of the teachings of both Adachi and Kito, would have immediately envisaged the use of thermochromic paint which changes reversibly between colored opaque and transparent as a suitable means by which to make the designs/patterns of Adachi appear and disappear.

Further, as to claim 16, we emphasize that the claim does not require that the first and second thermochromic materials be either the same material or different materials.

In rejecting claims 3 through 6 and 16 under 35 U.S.C. § 103, we have carefully considered the appellant's rebuttal evidence, discussed *supra*. For the following reasons, we conclude that, when all of the evidence is considered, including the totality of the rebuttal evidence, on balance, the rebuttal evidence fails to outweigh the evidence of obviousness as in Richardson-Vicks.

For the reasons discussed *supra*, the statistics on advertising resources on page 2 of the Apatov declaration raise a question as to whether the commercial success of the Color Racers product line was the result of the extensive advertising in 1988, rather than to the merits of the claimed invention.

Additionally, the evidence submitted by the appellant does not indicate how many, if any, of the Color Racers sold by Mattel comprised a vehicle body coated with a thermochromic material capable of changing the appearance of the vehicle from dirty to clean and vice versa, as required by claims 3 through 6, or thermochromic material capable of changing between colored opaque and transparent, as required by claims 4, 6 and 16. In this regard, it is not apparent to us that any of the samples of the

competitors' toy cars necessarily possessed either of these features. Thus, the evidence of commercial success and copying by others is not commensurate in scope with the claims.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 7 through 15 and 17 through 20 under 35 U.S.C. § 103 is affirmed. However, since the basic thrust of our affirmance of the rejections of claims 1, 2, 7, 8, 10 and 11 differs from that advanced by the examiner, our affirmance of these rejections is designated as new grounds of rejection under 37 CFR § 1.196(b). The decision of the examiner to reject claims 3 through 6 and 16 under 35 U.S.C. § 103 is reversed, but new grounds of rejection of these claims are added pursuant to the provisions of 37 CFR § 1.196(b). Additionally, a new ground of rejection of claim 12 is added pursuant to the provisions of 37 CFR § 1.196(b).

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53131, 53197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in issuance of a reexamination certificate indicating confirmation or patentability of all claims pending at the time of issuance, termination of the proceeding for failure to respond to an Office action or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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

AFFIRMED-IN-PART; 37 CFR § 1.196(b)

BRUCE H. STONER, JR.)	
Chief Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JEFFREY V. NASE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
JENNIFER D. BAHR)	
Administrative Patent Judge)	

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