UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALYSON MARIE DUNLOP,
AARON M. FIALA, CHRISTOPHER ANTHONY TALLON,
JACOB BRASLAW, JOHN MICHAEL PURCELL,
MARY ELLEN ROSENBERGER, STEPHEN JOSEPH BARRETT,
JAMES SCOTT GILLAND, SAMUAL A. SMITH,
TIMOTHY S. YOUNG, and WARREN PHILLIP BULLOCK

Appeal 2008-4140
Application 10/248,942
Technology Center 1700

Decided: September 25, 2008

Before CHARLES F. WARREN, THOMAS A. WALTZ, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicants appeal to the Board from the decision of the Primary Examiner finally rejecting claims 14 through 17, 19 through 21, and 29 through 35 in the Office Action mailed January 23, 2007. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2007).

We affirm the decision of the Primary Examiner.

Claim 1 illustrates Appellants' invention of a coated article, and is representative of the claims on appeal:

14. An article comprising:

a substrate;

a primer coat cured over the substrate;

a first base coat cured over a first portion of the primer coat, and

a second base coat cured over a second portion of the primer coat, wherein the first base coat and the second base coat are substantially the same thickness and are substantially adjacent each other.

The Examiner relies upon the evidence in these references (Ans. 3):

Jackson	US 6,034,166	Mar. 7, 2000
Yamada	US 6,582,766 B2	Jun. 24, 2003

Appellants request review of the ground of rejection of the appealed claims under 35 U.S.C. § 103(a) as unpatentable over Jackson in view of Yamada. Ans. 3; App. Br. 3.

Appellants argue independent claim 14 as representative of the claims as a group, with additional substantive argument presented with respect to claim 19. App. Br. 12-13. The arguments with respect to independent claims 30 and 31 merely point out the limitations thereof and state that the arguments presented for claim 14 apply to these limitations. App. Br. 13. Thus, we decide this appeal based on claim 14 as well as on claims 19, 30, and 31 to the extent argued in the Appeal Brief. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

The principal issues in this appeal are whether the Examiner has carried the burden of establishing a prima facie case of obviousness in the ground of rejection advanced on appeal which turns on the issues addressed below.

The issues require that we first interpret the language of claim 1 by giving the terms thereof the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art in light of the written description in the Specification unless another meaning is intended by Appellants as established therein, and without reading into the claim any disclosed limitation or particular embodiment. *See*, *e.g.*, *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004), and cases cited therein; *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997).

The plain language of independent claims 14, 30, and 31 specify any article comprising at least any substrate coated with any primer; a first base coat on at least any "first portion," however small, of the primer; a second base coat on at least any "second portion," however small, of the primer. In claim 14, "the first base coat and the second base coat are substantially the same thickness and are substantially adjacent each other." In claim 30, "the first base coat and the second base coat are the same thickness and are adjacent each other." In claim 31, "the first base coat and the second base coat are essentially the same thickness and are adjacent each other." The transitional term "comprising" opens the claims to encompass articles which have additional materials on the substrate such as the same or different base coats on other portions of the primer. *See, e.g., KCJ Corp. v. Kinetic Concepts Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000); *Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc.*, 212 F.3d 1377, 1383 (Fed. Cir. 2000); *In re Baxter*, 656 F.2d 679, 686 (CCPA 1981).

The term "substantially" in the phrases "substantially the same thickness" and "substantially adjacent each other" and the term "essentially" in the phrase "essentially the same thickness" are terms of degree, and thus, the Specification must provide a definition or some standard of measuring the extent to which the first and second base coats are "adjacent" each other as well as their relative "thickness." *See, e.g., Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984) ("Definiteness problems arise when words of degree are used. That some claim language may not be precise, however, does not automatically render a claim invalid. When a word of degree is used . . . [it] must [be determined] whether the patent's specification provides some standard for measuring that degree."); *In re Marosi*, 710 F.2d 799, 802-03 (Fed. Cir. 1983) (general guidelines and examples in the specification were sufficient to permit one of ordinary skill in the art to "draw the line between unavoidable impurities in starting materials and essential ingredients" with respect to "a silicon dioxide source that is essentially free of alkali metal"); *In re Mattison*, 509 F.2d 563, 564-65 (CCPA 1975) (general guidelines and examples in the specification were sufficient to permit one of ordinary skill in the art to select a substituent that would "substantially increase the efficiency of the compound as a copper extractant").

The Specification contains no definition of the subject phrases "substantially the same thickness," "essentially the same thickness," and "substantially adjacent each other." The following disclosure in the Specification is pertinent to whether the Specification provides some standard of measuring the extent to which the respective portions of the first

and second base coats are "adjacent" each other as well as their relative "thickness."

Specification Figure 3 illustrates first base coat 34 over the primer coat on second body portion 14 and second base coat 36 over the primer coat on first body portion 12, wherein

> the second base coat 36 is schematically illustrated as being essentially the same thickness and adjacent to the first base coat 34. The coats 34 and 36 being essentially the same thickness helps de-emphasize any witness lines. It should be understood, that a minor amount of the first base coat [34] could extend over into the first body portion 12 . . . in which case, the portion of the first base coat 34 over the first body portion 12 would be covered by second base coat 36. . . . .

Spec. 6, ¶ 0033, ll. 7-17.

Embodiments are described where the base coats are applied to body portions 12 and 14 by spraying, wherein

> the first based coat . . . is applied to the second body portion 14 and a relatively small portion of the first body portion 12. In embodiments where the first base coat . . . is applied also to portions of the first body portion 12 . . . the portions of the first body portion 12 where the first base coat . . . is applied are primarily adjacent the second body portion 14 . . . with the thickness of the first base coat . . . decreasing the further away it is applied from the second body portion 14.

Spec. 8, ¶ 0038, ll. 2-12.

In other embodiments where "first base coat 34 is typically referred to as the 'accent coat,'"

> the first base coat 34 covers the primer coat 32 at least substantially, over only the second body portion 14 . . . and in other embodiments, cover at least a relatively small portion of the first body portion 12 . . . [i]n embodiments where a portion of the first body portion 12 is covered by the first base coat 34,

> the area of the first body portion 12 covered is substantially adjacent the second body portion 14, with the thickness of the first base coat tending to decrease as it extends into the first body portion.

Spec. 9, ¶ 0041, ll. 4-11.

We observe that Specification ¶ 0045 was amended to include the recitation "[a]s it can be seen in the embodiment illustrated in Figure 11, the first base coat and the second base coat can be the same thickness and are adjacent each other."[1] However, Figure 11 is styled as blocks illustrating the positions of coatings and "schematically illustrates the article after the second base coat composition 35 has been applied." Spec. ¶ 0045. Appellants further disclose that "[t]he figures are not necessarily to scale, some features may be exaggerated or minimized to show details of particular components." Spec. ¶ 0029.

We find no guidance in these disclosures which establishes the degree conveyed by the terms "substantially" and "essentially" with respect to "substantially the same thickness," "substantially adjacent each other," and "essentially the same thickness." Indeed, these disclosures indicate the two base coats can be applied to portions of the primer such that the base coats are, among other things, "essentially the same thickness and adjacent;" of different thickness creating a "witness line" because of the difference in elevation;[2] overlapping to any extent as well as in "relatively small portion;" of different thicknesses in the direction away from the "adjacent" areas; and "substantially adjacent." We find the same equivocation with respect to the

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[1] Amendment filed April 17, 2006.
[2] *See* Specification 2, ¶ 0007, ll. 6-7.

term "adjacent" in the appealed claims: "substantially adjacent (claim 14); "adjacent" (claim 30); and "directly adjacent" (claim 35).

Thus, consideration of the common, dictionary meaning of the claim terms "substantially" and "adjacent" in the context of the written description in the Specification is appropriate here. *See, e.g., Phillips v. AWH Corp.,* 415 F.3d 1303, 1317-18 (Fed. Cir. 2005) (en banc) (the written description in the specification can be considered in light of the dictionary definition of terms employed therein where the terms are not defined in the specification). We determine that, in the context of the disclosure in the Specification, the central term "substantially" would have its ordinary, dictionary meaning of "largely but not wholly." *See*, *e.g.*, *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1572-73, (Fed. Cir. 1996) ("In this case, the patent discloses no novel uses of claim words. Ordinarily, therefore, 'substantially' means 'considerable in . . . extent,' *American Heritage Dictionary Second College Edition* 1213 (2d ed. 1982), or 'largely but not wholly that which is specified,' *Webster's Ninth New Collegiate Dictionary* 1176 (9th ed. 1983).").

We find no common, dictionary definition of the term "essentially" in the context of connoting a degree of measurement in which it is used in the Specification and the appealed claims. *See, e.g.*, **essentially**, *The American Heritage Dictionary of The English Language* 609 (4th ed., Boston, Houghton Mifflin Company, 2000). Accordingly, we are guided in our interpretation of this term by the manner in which it is used in the Specification. *See below* paragraph bridging pp. 8-9. *See Marosi*, 710 F.2d at 802-03.

In our opinion, as a matter of law, a reasonable construction of the phrase "substantially adjacent" in light of the disclosure in the Specification is that in combination with the term "substantially," the term "adjacent" has its full common, dictionary meaning of "close to; lying near" *and* "next to; adjoining."[3] Indeed, the separate meanings of the term "adjacent" are reflected in the disclosure in the Specification of two base coats which can be "close to" each other as well as "next to" each other. There is no disclosure that the base coats must be "directly" adjacent. The latter condition includes the base coats "next to" each other in overlapping position over the same portion of the primer coat or "body portion." There is no limitation in claims 14, 30, and 31 which excludes this result as each base coat is specified as "cured over," that is, positioned above to any extent, its respective "portion." [4]

Similarly, a reasonable construction of the phrase "substantially the same thickness" in claim 14 in light of the disclosure in the Specification is that the respective base coats must be largely but not wholly of the same thickness. A reasonable construction of the phrase "essentially the same thickness" in light of the Specification also indicates that there can be some difference in thickness between the two base coats, even to the extent of exhibiting a "witness line" and overlapping. Thus, there is no limitation in claims 14 and 31 which excludes a "witness line" and the Specification

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[3] *See*, *e.g.*, **adjacent**, *The American Heritage Dictionary of The English Language* 21.
[4] *See*, *e.g.*, **over**, *The American Heritage Dictionary of The English Language* 1252.

indicates the thickness of the base coats can vary, particularly when overlapped.

Thus, claim 14 encompasses articles in which the base coats can be largely but not wholly of the same thickness and largely but not wholly adjacent to each other; claim 30 encompasses articles in which the base coats have the same thickness but are not directly adjacent to each other; and claim 31 encompasses articles in which the base coats can be of different thickness and are not directly adjacent to each other. Each of these claims encompass articles in which the base coats can be overlapped.

We find Jackson would have disclosed to one of ordinary skill in this art a primer composition containing microgel particles which allows the primer coated on a substrate of an article to be overcoated "without the topcoats sagging down into or intermixing with the uncured primer." The uncured primer can be coated wet-on-wet with one or more top coats, such as a color coat and a clear coat, and the uncured multilayer coating on a substrate cured in one curing step. Jackson, e.g., abstract, col. 1, ll. 8-15 and 40-47, col. 3, ll. 5-14 and 42-55, col. 10, ll. 21-57, col. 11, l. 60, col. 12, l. 44, to col. 13, l. 12.

We find Yamada would have disclosed to one of ordinary skill in this art three methods of coating a substrate of an article in two tones by spraying to "paint a border line in a clearly defined form to distinguish one coating area from an adjacent coating area of a different color." Yamada, e.g., abstract, col. 1, ll. 5-7, and col. 3, ll. 35-42. Each of the spraying methods comprises the steps of (1) coating a first color area on a substrate with a first color paint in a first color coating stage; (2) coating a border zone with a

second color paint to paint a clear border line bounding on said first color area in a border zone coating stage; and (3) coating the second color paint on a belt zone continuously from the border zone coating in a belt zone coating stage. Yamada col. 3, l. 43 to col. 4, l. 58, col. 4, l. 59 to col. 7, l. 2, col. 7, l. 3 to col. 9, l. 63. The steps of the methods differ in the orientation and movement of the rotary atomizing head of the sprayer apparatus with respect to the substrate which, along with the paint compositions, affects the spray pattern. *Id.* This can result in forming "a border . . . line with thick and clear coating" as well as in a "flat and thinner coating . . . formed on a surface area distant from the border line." Yamada, e.g., col. 6, ll. 32-45, and col. 9, ll. 8-17.

In a preferred embodiment wherein the method coats a left rear door, as illustrated in Figures 17, 18, 22, and 23, the belt zone coating stage results in "border line BL . . . painted on a border zone b . . . by coating the color B paint . . . in overlapping relation with lower portions of the color A coating PA" forming coating PB1 painted in the first color coating stage. Yamada col. 12, ll. 1-11, and Figs. 17 and 18. The belt zone coating stage is conducted in two parts, with "belt zone c" painted to form coating PB2 overlapping lower portions of coating PA, and the uncoated section of the door, "d" in Figure 23, is painted to form coating PB3. Yamada col. 12, ll. 11-23, and Figs. 22 and 23. The door thus has colors A and B on opposite sides of border line BL. Yamada col. 12, ll. 40-45, and Fig. 3. The coatings PA, PB1, PB2, and PB3 and their relative thicknesses resulting from different orientations of the spray head are illustrated in Figures 12-14. Yamada, col. 15, l. 54 to col. 22, l. 52. In these respects, the methods form

border line BL with coating PB1 of sufficient thickness over coating PA, and forming belt zone coating PB2 as a gradational coating in a direction away from coating PB1 and partly overlapping coatings PA and PB1 thus, preventing increases in thickness in overlap zones. Yamada col. 15, l. 54 to col. 16, l. 14; *see also* col. 21, l. 64 to col. 22, l. 52. Yamada discloses two similar preferred embodiments. Yamada col. 22, l. 53 to col. 25, l. 61, and Figs. 24-33.

We determine the combined teachings of Jackson and Yamada, the scope of which we determined above, provide convincing evidence supporting the Examiner's case that the claimed article comprising a coated substrate encompassed by claims 14, 30 and 31, as we interpreted these claims above, would have been prima facie obvious to one of ordinary skill in the coating arts familiar with the methods for applying coatings to a substrate. We agree with the Examiner that, stated in other words, one of ordinary skill in this art would have used Jackson's primer coating as the primer in Yamada's method of forming two tone coatings on a substrate in the reasonable expectation of obtaining an article having a coated substrate. Ans., e.g., 3-4 and 6. Accordingly, this person in routinely following the combined teaching would have reasonably arrived at the claimed article encompassed by claims 14, 30, and 31, including all of the limitations thereof, without recourse to Appellants' Specification. *See, e.g., e.g., KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1739 (2007)(a patent claiming a combination of elements known in the prior art is obvious if the improvement is no more than the predictable use of the prior art elements according to their established functions); *In re Kahn*, 441 F.3d 977, 985-88,

(Fed. Cir. 2006); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("[T]he test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art."); *In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985) (skill is presumed on the part of one of ordinary skill in the art); *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969) ("Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness 'from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.'"); *see also In re O'Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988) ("For obviousness under § 103, all that is required is a reasonable expectation of success." (citations omitted)).

Upon reconsideration of the record as a whole in light of Appellants' contentions, we are of the opinion that Appellants have not successfully rebutted the prima facie case. We cannot agree with Appellants' contention that Yamada's disclosure of three preferred embodiments "teaches away" from the claimed article encompassed by claims 14, 30, and 31, as we construed these claims above, because Yamada applies "adjacent colors in an overlapping relation." App. Br. 6-10, 11, 12, and 13; Reply Br. 1-2. On this record, we also cannot agree with Appellants' contention that the base coats applied in Yamada's three preferred embodiments are "not of substantially the same thickness," and with respect to claim 31, are not of "essentially the same thickness." App. Br., e.g., 7 and 13; Reply Br. 1-2.

We interpreted claims 14 and 31 to encompass articles in which the substrate is coated by base coats of different thicknesses, and claims 14, 30,

and 31 to encompass articles that can be overlapped and additionally contain other base coated portions of the primer coat. Appellants' arguments do not direct us to any teachings in Yamada, including the preferred embodiments, which establish that the substrates coated with base coats having different thicknesses and are overlapped taught therein fall outside of the scope of claims 14 and 31, or having the same thickness and overlap. Furthermore, we fail to find any elements constituting a "teaching away" in Yamada. *See, e.g.*, *Kahn*, 441 F.3d at 985-89 ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." (quoting *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994))); *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art "disclosure does not criticize, discredit, or otherwise discourage the solution claimed").

Indeed, even if it is held that the articles coated in Yamada's three preferred embodiments fall outside of any or all of claims 14, 30, and 31, the reference discloses other teachings (*see above* pp. 9-10) which would have led one of ordinary skill in this art to conduct Yamada's methods using different orientations of the spray head to obtain different coatings thicknesses and base coat positions. *See, e.g., In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976) ("[T]he fact that a specific [embodiment] is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.").

We are also not convinced by Appellants' contentions that there is no motivation to combine the references because Yamada teaches "pronounced

witness lines by the overlapping of base coat paints," and there is no reasonable expectation of success in combining Jackson's method of forming a one tone article with Yamada's method of forming a two tone article. App. Br. 10-12. We determined above that claims 14, 30, and 31 do not exclude witness lines. We further determine that one of ordinary skill in this art would have found in the similarity of the processes of the references in apply coatings wet-on-wet and the disclosure of a primer composition for such processes by Jackson would have led this person to combine the references and thence to articles containing substrates which are coated with different base coats as taught by Yamada. *See, e.g.*, *KSR*, 127 S.Ct. at 1739; *Kahn*, 441 F.3d at 985-88.

Turning now to claim 19, the plain language of this claim specifies that the primer coating composition must be capable of "a sag level of at least 2 mils when measured according" to the specified standard. It is disclosed in the Specification that the primer composition "can help prevent at least substantial, and potentially any, intermixing between the primer coat" and the base coat, wherein "the minimum acceptable sag level" is that set forth in claim 19. Spec. 7, ¶ 0036, ll. 4-13.

Appellants contend there is no evidence Jackson's primer coating meets the limitations of claim 19. App. Br. 12-13; Reply Br. 2-3. We determined above that Jackson would have disclosed a primer composition which in an uncured state resists topcoat sagging into and intermixing with the primer coat. *See above* p. 9. The fact that Appellants describe a sag level in different terms than that used in the prior art will not alone confer patentability. *See, e.g., In re Skoner*, 517 F.2d 947, 950-51 (CCPA 1975)

("Appellants have chosen to describe their invention in terms of certain physical characteristics. . . . Merely choosing to describe their invention in this manner does not render patentable their method which is clearly obvious in view of [the reference]." (citation omitted)). Here, it reasonably appears that the claimed primer coat and that of Jackson are identical or substantially identical, thus shifting the burden to Appellants to establish the patentability of claim 19 over the combined teachings of Jackson and Yamada by argument and/or objective evidence. *See, e.g., In re Spada*, 911 F.2d 705, 708-09 (Fed. Cir. 1990); *In re Best*, 562 F.2d 1252, 1255-56 (CCPA 1977); *Skoner*, 517 F.2d at 950-51. We find no such argument or evidence in the record.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Jackson and Yamada with Appellants' countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 14 through 17, 19 through 21, and 29 through 35 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

The Primary Examiner's decision 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).

AFFIRMED

PL Initial:
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