UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. 2007-0196
Reexamination Control No. 95/000,009

Alfred D. Lobo ex rel.
LORD CORPORATION,
Requester/Appellant,

v.

United States Patent 6,399,670
(CONGOLEUM CORPORATION,
Patent Owner/Appellee).

HEARD: 9 January 2007
ENTERED: 30 March 2007

DECISION – Bd. R. 77(b)

Before TORCZON, LANE, and TIERNEY, *Administrative Patent Judges*.
TORCZON, *Administrative Patent Judge*.

INTRODUCTION

The invention disclosed in Congoleum Corporation's 6,399,670 patent is broadly directed to abrasion-resistant, textured coatings. The claims are broadly directed to a pre-cured coating mixture comprising a radiation-curable resin, an initiator, and a rheological control agent. The various claims add additional limitations or further limit the mixture or the rheological control agent.

Lord Corporation requested reexamination of all seventeen claims in Congoleum's patent as having been anticipated or obvious in view of prior art. The examiner granted the request for inter partes reexamination, but promptly declined to enter any rejection. An inter partes reexamination requester may appeal under

35 U.S.C. 134 from a final decision of the examiner favorable to patentability. Such an appeal places the requester in the unaccustomed position of having both the burden of showing error in the examiner's decision and the ultimate burden of proof on the question of patentability.

We—

AFFIRM the decision not to reject the claims as anticipated;

REVERSE the decision not to reject the claims as obvious; and

REMAND for examination consistent with this opinion.

ANTICIPATION

Lord argues that the following patent anticipated Congoleum's claims under 35 U.S.C. 102:

> H.A. Chen, R. Judd, I.B. Rufus, and J.R. Shultz, "Contrasting gloss surface coverings optionally containing dispersed wear-resistant particles and methods of making the same", U.S. Patent 6,228,463 B1 (issued 8 May 2001) ("Chen").

Lord is vague about which provision of § 102 applies.[1] The examiner characterizes the rejection as based on § 102(b). See, e.g., Action Closing Prosecution 4 (mailed 7 April 2003). Since the application that produced Congoleum's patent was filed before Chen issued, a rejection under § 102(b) is not possible. In failing to state a precise basis for the rejection, Lord arguably failed to make out a facially complete case in the first instance. The examiner should not be placed in the position of having to guess what the requester really meant before proceeding with the examination.

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[1] When urging obviousness, on the other hand, Lord specifies that the statutory basis is 35 U.S.C. 103(a), although in this case the precision is not as important.

It is also improper for a requester to expect the Board to make out a facially adequate case on behalf of the requester for the first time on appeal. In this case, because we perceive no prejudice to Congoleum, the examiner, or the Board, we exercise our discretion to analyze the proposed rejection under § 102(e), which appears to be the most applicable basis for the rejection. On different facts, the requester's imprecision in proposing the rejection might have resulted in a simple affirmance instead.

Consideration of two limitations is sufficient to illustrate the substantive problems with the anticipation rejections.

Sixty micron-sized nylon 12 particles

Claim 1 requires 60 micron-sized nylon 12 particles. Lord points to Chen at 4:6-28,[2] which teaches wear-resistant particles, including hard plastics, and a most-preferred size range of 30-200 microns. While the claim limitation falls within Chen's teaching, both in terms of size and material, Chen does not expressly teach the limitation. We have no evidence that the limitation is inherent in Chen. If anything, the opposite is true since Chen (at 4:6-8) expressly prefers aluminum oxide particles. At the oral argument, Mr. Lobo, Lord's representative and a registered practitioner, was asked to explain how this limitation was met. He could not do so yet he also declined the panel's invitation to withdraw the proposed anticipation rejection for claim 1. Lord's argument for the anticipation of claim 1 is frivolous.

An argument is frivolous when, among other possibilities, a reasonable patent practitioner would not believe the reference taught the contested limitation.

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[2] Column:line(s).

Cf. Antonious v. Spalding & Evenflo Companies, Inc., 275 F.3d 1066, 1074, 61 USPQ2d 1245, 1249 (Fed. Cir. 2002) (affirming frivolousness holding where accused device did not meet claim limitation literally or by the doctrine of equivalents). By maintaining a baseless assertion of anticipation without any plausible argument, Mr. Lobo exceeded the limits of acceptable advocacy. See 37 C.F.R. § 10.23(d) (reckless indifference may be construed as fraud).[3] Inter partes reexamination requesters and their proxies should not assume that they are impervious to procedural and substantive sanctions.

Initiator

Claim 6, like all of Congoleum's claims, requires an "initiator". The examiner contends that Chen fails to teach an initiator. The initiator in question facilitates the radiation-curing of the resin. See Congoleum's patent at 6:6-22, which explains that "Such initiators are well known in the art and may be selected based upon the curing conditions used (e.g., curing in an inert environment or in air)." Chen, however, does not expressly disclose the use of an initiator.

Lord has provided declaration testimony from Ian Quarmby. Dr. Quarmby is a Lord employee and purports to have considerable relevant experience in the ultraviolet ("UV") radiation-curable coatings art. Congoleum argues that the Quarmby declaration should be disregarded on many grounds. In particular, Congoleum "reserves its right to appeal" the petition decision permitting the declaration to remain in the record. Supp. Resp. Br. 1-2 (entered 7 July 2004). We give no weight to Congoleum's reservation. Review of a petition decision is beyond the purview of the Board on appeal. *Cf. In re Berger*, 279 F.3d 975, 984,

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[3] Mr. Lobo's use of pejorative avian terms in referring to the examiner is also

61 USPQ2d 1523, 1529 (Fed. Cir. 2002) (no review of petition in appeal proceeding). Congoleum's remedy was a mandamus action seeking review of the Director's discretionary decision. *Hornback v. United States*, 405 F.3d 999, 1000-01, 74 USPQ2d 1538, 1539 (Fed. Cir. 2005). The time for Congoleum to pursue its equitable remedy passed once the case was submitted to the Board. The declaration is in the record so we address it.

The examiner accords little weight to Dr. Quarmby's testimony because he is an employee of the requester. The relationship between a declarant and the proponent of the testimony is certainly a factor to be considered when assigning weight to the testimony. *E.g.*, *Ferring B.V. v. Barr Labs. Inc.*, 437 F.3d 1181, 1188, 78 USPQ2d 1161, 1167 (Fed. Cir. 2006) (withheld relationship information was highly material); *Scripps Res. Inst. v. Genentech, Inc.*, 77 USPQ2d 1809, 1815 n.5 (BPAI 2005). There is no per se rule, however, that a relationship between the witness and proponent necessarily deprives the testimony of weight and credibility. While Dr. Quarmby's relationship with Lord gives rise to an inference that Dr. Quarmby framed his testimony in a manner most favorable to Lord, it does not follow that his loyalty extends to dishonesty. Indeed, his declaration concludes with an acknowledgement of his obligation to tell the truth and of his criminal liability if he does not do so. Moreover, Dr. Quarmby's declaration is largely directed to statements of testable fact rather than opinion and includes data that tends to support the testimony.

Dr. Quarmby testifies, at ¶5, that commercial UV radiation-curable coatings like Chen's are formulated with a photoinitiator "because the resin without the

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unprofessional. 37 C.F.R. §§ 1.3 (courtesy and decorum) and 41.1(c) (same).

photoinitiator would not cure with U-V radiation in a reasonable period, less than a day." We find this testimony to be very credible so far as it goes. Even if an initiator was recognized as desirable, we have no basis to infer that the resin Chen discloses necessarily had an initiator (or was otherwise fine-tuned for commercial use). The test for an inherent disclosure is fairly stringent. Given this stringency, we hesitate to fault the examiner for declining to find anticipation.

OBVIOUSNESS

Lord argues that the Chen patent with other prior art would have made Congoleum's claims obvious under 35 U.S.C. 103(a). We agree.

In general, the examiner has read both the claims and the teachings of the art too narrowly. During examination, claims are read as broadly as they reasonably can be read in view of the specification, while the prior art must be considered not only for what it teaches, but also for all that it would fairly suggest to a person having ordinary skill in the art. The examiner's narrow reading of the Chen patent, coupled with the perceived failure of the other prior art to remedy the deficiencies in Chen, led to reversible error on the question of obviousness.

"New" ground of rejection

All seventeen claims should be rejected as having been obvious as Lord proposed. Rather than repeat Lord's *prima facie* case for obviousness, we focus on a proper application of Chen to the contested limitations.[4] Once Chen is properly applied, Lord's proposed rejection speaks for itself.

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[4] The ultimate question of obviousness requires simultaneous consideration of all of the limitations and all of the teachings in the art. As a practical matter, we must look at the limitations individually and focus on the points actually in dispute.

An initiator

We start with the premise that Chen does not expressly or inherently teach the use of an initiator with Chen's invention. Would an initiator have been obvious to a person having ordinary skill in the art nevertheless? There is ample reason to believe it would have been.

As Lord points out in its request, Congoleum's patent discloses that initiators are "well-known". Indeed, Congoleum's patent broadly suggests that a person having ordinary skill in the art would know how to pick the initiator to suit the curing conditions. There is no argument that Congoleum's disclosure is not credible. The use of initiators in radiation curing cannot be well-known for the purpose of enabling Congoleum's claims, but not for the purpose of obviousness.

Alternatively, Dr. Quarmby credibly testifies that initiators are routinely part of preformulated, commercial UV-curable resins. Although this testimony might not be sufficient to establish inherency, it is more than adequate to make out a *prima facie* case that one skilled in the art would have used an initiator with Chen's composition if for no other reason than to comply with industry norms. *Cf. Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1484, 44 USPQ2d 1181, 1187 (Fed. Cir. 1997) (noting that shifting industry norms and brand extension account for the claimed difference).

While the examiner was correct in not finding the initiator to be inherent in Chen, he erred in applying an inherency analysis to the obviousness rejection as well. There is enough in Chen alone, when viewed in light of either Congoleum's representations about the art in its patent disclosure or Dr. Quarmby's testimony, to make out a *prima facie* case that use of an initiator would have been obvious.

A rheological control agent comprising alumina particles having an approximate size in the range from 27-56 nanometers

The heading comes from Congoleum's claim 1. This discussion also applies to some of the other independent claims that are even less specific ("inorganic" for "alumina" in claims 6 and 10; "nanometer-sized" in claim 7). Lord cites Chen at 9:50-56:

> Besides the above-described embodiments for incorporating wear-resistant particles into a coating layer, another method of incorporating wear-resistant particles into one or more coating layers involves the use of fumed silica or alumina or other similar types of materials as the suspension aid which have a submicron particle size range. Preferably, the submicron particle size range is from 5 to about 25 nm.

Chen expressly teaches alumina, which is undisputedly inorganic. Chen expressly prefers particles "about 25 nm". Two observations are apt. First, Chen's "about 25 nm" is fuzzy not just in the abstract, but also in comparison with the lower end of Chen's range (5 nm), which is not so qualified. Moreover, Chen's entire range is simply preferred. A person having ordinary skill in the art would not have read Chen as excluding 27 nm particles from the permissible range.

Congoleum expresses its lower bound as "an approximate size in the range of 27…nanometers". The lower bound of this claimed range is fuzzy. The imprecision in these proximate boundaries of Congoleum's claim and Chen's merely preferred range, is sufficient to make out a *prima facie* case for obviousness for this limitation.

Sixty micron-sized nylon 12 particles

Chen does not teach the use of 60 μm nylon 12. Chen does teach, at 4:9-24, that suitable wear-resistant particles include aluminum oxide as well as:

> "[o]ther wear-resistant particles includ[ing], but [] not limited to, carborundum, quartz, silica (sand), glass particles, glass beads, glass spheres (hollow and/or filled), plastic grits, silicon carbide, diamond dust (glass), hard plastics, reinforced polymers, organics, and the like[.]"

Moreover, the preferred "particle size of the wear-resistant particles is from about 10 microns to about 350 microns, and more preferably from about 20 microns to about 250 microns, and *most preferably from about 30 microns to 200 microns*." (Emphasis added to stress the most preferred range since the examiner focused on the broadest range, thus needlessly making the choice seem less likely.) Chen then offers tests for those skilled in the art to determine whether the wear resistance is adequate. Finally, Chen notes that wear-resistant particles may protrude above the surface of the coating (i.e., provide texture) as a way of enhancing the wear resistance of the coating. Nylon 12 is a hard plastic and 60 μm is within Chen's most preferred size range. Moreover, Chen suggests that those skilled in the art are comfortable with selecting an appropriate wear-resistance particle from the known choices and testing its performance using art-recognized tests.

"Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved." *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). If after these determinations, the claimed invention appears to have been obvious, the burden of production (not the ultimate burden of proof) shifts to the patentee to provide so-called secondary considerations, i.e., contextual evidence, to show why in context the claimed invention is not as obvious as it first appears.

In this case, looking at the Chen content alone, the difference is clear: Congoleum claims a specific "texture-producing particle" within Chen's broad range of possible wear-resistant particles that provide texture. From Chen we know that those skilled in the art are sophisticated enough to choose from this selection with little guidance and to test their selections to ensure that they work. We have no indication that wear-resistant particle selection is unpredictable; indeed, Chen treats the alternatives as fungible. Given this fungibility, one of skill in the art might choose 60 μm nylon 12 for just about any reason at all, including availability, cost, color choices, etc. In view of Chen alone, a person having ordinary skill in the art would have considered 60 μm nylon 12 particles to have been an obvious choice.

A coupling agent comprising prehydrolyzed silane

This limitation comes from Congoleum's claim 1. No other independent claim requires any coupling agent. Claims 12 and 16 (depending from independent claims 10 and 14, respectively) require only a "coupling agent" with no further detail. Congoleum discusses the use of a coupling agent with the rheological control agent ("RCA") in very broad terms, as though a person having ordinary skill in the art would already be familiar with the use of coupling agents in this context. For instance, in discussing the use of 27-56 nm alumina as the RCA (6:62-66), Congoleum notes in passing:

> Most preferred is nanometer-sized alumina with a particle size range of 27-56 nm due to the enhanced cured coating transparency afforded by such small particles when they are well-dispersed (e.g., through the use of an appropriate amount and type of coupling agent).

Similarly, in the next column (7:41-59), Congoleum leaves broad discretion to the reader to select an appropriate coupling agent:

> A coupling agent or dispersing agent may also be added for purpose of aiding the dispersion of the RCA in the pre-cured coating mixture. The coupling agent may be any material that provides surfactant-like properties and is capable of enhancing the dispersion of the RCA in the pre-cured coating mixture, in particular, the dispersion of inorganic particles. The coupling agent ideally forms a chemical and/or physical bond with the pre-cured coating mixture and the inorganic particle, which improves the adhesion of the particle to the pre-cured coating mixture. Generally, the coupling agent is a organo-silicon or organo-fluorine containing molecule or polymer. Preferred organo-silicon materials are organosilanes and more preferably a prehydrolyzed organosilane. The coupling agent may also be vinyl phosphonic acid or mixtures of phosphonic acid with the prehydrolyzed organosilane. The concentration of the dispersing agent may be approximately 0.1-20%, by weight, in the pre-cured coating mixture, and more preferably approximately 0.1-15%, by weight.

As Lord notes, Chen discloses the effects of using a dispersing agent in a UV-cured system (Table 12, cols. 21 & 22). This is enough to reach the coupling agent limitation in all but claim 1. Claim 1, however, specifically requires "prehydrolyzed silane".

While Chen does not teach "prehydrolyzed silane" in so many words, Chen's more preferred suspension agent for alumina comprises "polysiloxane copolymer" (at 6:40-53; see also Table 12 at n.c where it is called a "dispersing agent"). According to Lord's request (at 17):

> A polysiloxane copolymer is formed via hydrolysis of silanol monomers, and falls under the terminology "prehydrolyzed silane".

While this statement in isolation is attorney argument, it is pretty plausible on its face. Moreover, we need not read it in isolation. Lord cites two patents to Parker[5] illustrating this chemistry.

The examiner dismisses the Parker patents as improper in an anticipation rejection. Had the examiner addressed them in the context of the obviousness rejection, he might have said they are not analogous art. Neither objection is apt in this case, however. The Parker patents are not used as prior art, but rather as an illustration of the chemistry underlying Congoleum's claim limitation: hydrolyzed silanes is broad enough to include siloxane oligomers. While it would have been neater for Lord to have used analogous art to help explain the claim term, there is no reason to believe the basic chemistry changes depending on who is using it.

Once Congoleum's claimed coupling-agent limitations are properly construed and the Chen reference is considered for all that it would have fairly taught a person having ordinary skill in the art, there is more than enough basis for a *prima facie* case of obviousness for this limitation.

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[5] A.A. Parker, T.T. Stanzione, G.H. Armstrong, F.E. Phelps, and S.M. Opalka, "Densified ceramic green sheet and stack having conductors therein", U.S. Patent 5,252,655 (issued 12 October 1993); A.A. Parker, E.M. Anderson, and T.T. Stanzione, "Surface treated ceramic powders", U.S. Patent 5,348,760 (issued 20 September 1994).

Conclusion of obviousness

The defects of the proposed anticipation rejection appear to have infected the obviousness analysis. If the claims are given their broadest reasonable scope and the references, particularly Chen, are read for all they fairly teach and suggest, Lord's proposed obviousness rejection makes sense on its face. Whether it will continue to make sense after Congoleum presents its case we need not prejudge.

cc:

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