Paper No. 39

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AUDREY A. SHERMAN, MIECZYSLAW H. MAZUREK, WALTER R. ROMANKO, PATRICK D. HYDE, ROY WONG, and ALBERT I. EVERERTS

Appeal No. 2002-1622
Application No. 08/735,836

ON BRIEF

Before GARRIS, TIMM, and MOORE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Claims 1, 3, 6, 21, 24-26, and 38-57 are currently pending in the Application. Claims 43-49 stand allowed by the Examiner. Applicants appeal the decision of the Primary Examiner finally rejecting claims 1, 3, 6, 21, 24-26, 38-42, 50-57. We have jurisdiction under 35 U.S.C. § 134.

THE CLAIMED SUBJECT MATTER

The claims are directed to a polymeric mixture. Claims 1 and 38 are illustrative:

1. A mixture comprising (a) at least one polymer selected from the group consisting of a thermoplastic polymer, an elastomeric thermoset polymer and mixtures thereof, excluding polydiorganosiloxane fluids, and (b) a polymer having (i) soft polydiorganosiloxane units, (ii) hard polyisocyanate residue units, (iii) optionally, soft and/or hard organic polyamine residue units, and (iv) terminal groups; wherein (i), (ii) and (iii) are interconnected through urea linkages, and polymer (a) is immiscible with polymer (b).

38. A mixture obtained by the process comprising blending together, in the absence of a solvent, (a) at least one polymer selected from the group consisting of a thermoplastic polymer, an elastomeric thermoset polymer and mixtures thereof, excluding polydiorganosiloxane fluids, and (b) a polymer having (i) soft polydiorganosiloxane units, (ii) hard polyisocyanate residue units, (iii) optionally, soft and/or hard organic polyamine residue units, and (iv) terminal groups; wherein (i), (ii) and (iii) are interconnected through urea linkages.

THE EVIDENCE

As evidence of unpatentability, the Examiner relies upon the following prior art references:

Tushaus et al. (Tushaus)	5,290,615	Mar. 01, 1994
Birkholz et al. (Birkholz)	5,663,227	Sep. 02, 1997 (filed Mar. 14, 1996)

THE REJECTIONS

Claims 1, 3, 6, 21, 24-26, 38-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Birkholz in view of Tushaus. Claims 50-57 stand rejected under 35 U.S.C. § 112, ¶ 1 as lacking an adequate written description.

OPINION

We commend both the Appellants and the Examiner for their clarity in presenting the issues on appeal. Both the claims to be reviewed and the points at issue are clearly delineated. That said, we affirm and, in so doing, we incorporate by reference the cogent analysis presented by the Examiner on pages 3-9 of the Answer. We add the following primarily for emphasis.

Obviousness

The Examiner rejects claims 1, 3, 6, 21, 24-26, and 38-42 as obvious over Birkholz in view of Tushaus. Appellants indicate that claims 1, 3, 6, 21, and 24-26 stand or fall separately from claims 38-42. In accordance with Appellants' grouping, the Examiner's analysis focuses on the obviousness of the subject matter of claims 1 and 38. We select claims 1 and 38 to represent the issues on appeal.

Claim 1

Claim 1 is directed to a composition which is a mixture of polymer (a)(thermoplastic or elastomeric thermoset or mixture thereof) and polymer (b)(organosiloxane polyurea block copolymer). Birkholz describes mixing polyvinyl pyrrolidone (PVP) with an organo polysiloxane polyurea copolymer of the type described by Tushaus (Birkholz at col. 2, ll. 3-8). Appellants do not dispute the Examiner's finding that PVP meets the requirements of Appellants' polymer (a) nor the finding that the copolymer of Tushaus meets the requirements of Appellants' polymer (b)(Answer at 4; Brief at 8-9). Instead, Appellants argue that the combination of prior art does not teach or suggest all the claim limitations, in particular, the limitation that polymer (a) be immiscible with polymer (b).

To address Appellants' argument, it is necessary to first determine how the claim should be interpreted. Claim 1 is directed to a composition. As such, the claimed mixture must be distinguished from the prior art on the basis of its composition and structure. *C.f. In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985)(Determination of patentability is based on the product itself.). Differences in how the product was produced will not render a product which is the same or obvious from a prior art product patentable. *Id*. No can a mere difference in terminology render the claims patentable. *See In re Skoner*, 517 F.2d 947, 950, 186 USPQ 80, 82 (CCPA 1975). In terms of structure, a mixture of immiscible polymers is a heterogeneous mixture. If the prior art describes or suggests a polymer mixture of (a) and (b) which is heterogeneous, a *prima facie* case of unpatentability is established.

The Examiner has presented a reasonable basis to believe that the mixture taught by Birkholz is a heterogeneous mixture of PVP particles in organosiloxane polyurea block copolymer. This belief is based upon the use of "dispersed" to describe the addition of calcium carbonate and PVP to the silicone urea block copolymer (Birkholz at col. 3, ll. 14-17) and the characterization of PVP as being "dispersed" throughout the copolymer (Birkholz at claim 1). The word "dispersed" is commonly used in the chemical arts to describe the dispersion of one substance, as small particles, in another substance. Therefore, it is reasonable to believe that this is what is meant in Birkholz.

Once the Examiner presented a reasonable basis to believe that the mixture of Birkholz is heterogeneous, the burden shifted to Appellants to prove that the mixture of Birkholz is not heterogeneous and thus would not have the characteristics of an immiscible mixture. *See In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). Appellants argue that the Leir Affidavit establishes that the PVP is miscible with the copolymers of the type disclosed in Birkholz (Brief at 9). However, we agree with the Examiner that the Leir Affidavit presents no objective evidence showing a patentable difference between the mixtures. Leir's statement that he believes these polymers are miscible does not overcome the evidence contained in Birkholz tending to show that PVP is dispersed in the copolymer. Moreover, in ¶ 9, the Leir Affidavit states that PVP is not a hot melt processable polymer as it tends to degrade before it melts. This statement supports a finding that Birkholz disperses PVP in solid particle form just as is presumably done with calcium carbonate. Solid PVP would be immiscible in the copolymer as required by the claim.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 1, 3, 6, and 21. In fact, as Tushaus is used as extrinsic evidence to show what is described by Birkholz and not used to modify the teachings of Birkholz, the rejection could have been made under 35 U.S.C. § 102(e). *See In re Baxter Travenol Labs.*, 952 F.2d 388, 390, 21 USPQ2d 1281, 1284 (Fed. Cir.1991)(extrinsic evidence may be considered when it is used to explain, but not expand, the meaning of an anticipatory reference). We affirm as lack of novelty is the ultimate or epitome of obviousness. *In re Fracalossi*, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982).

Claim 38

Claim 38 is directed to a mixture made by a process of blending polymer (a) and polymer (b) in the absence of a solvent. This claim is in product-by-process format. "In order to be patentable, a product must be novel, useful and unobvious. In our law, this is true whether the product is claimed by describing it, or by listing the process steps used to obtain it." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). "[D]etermination of patentability is based on the product itself." *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985). "The patentability of a product does not depend on its method of production." *Id*.

The Examiner has provided a reasonable basis to believe that the mixture of polymers described by Birkholz is the same or substantially the same as that claimed. As pointed out by the Examiner, while Birkholz mixes the polymers in the presence of solvent, that solvent is removed (Answer at 5). Whether the mixture is made in the absence of solvent or the solvent is removed, the products appear to be identical or substantially identical as each would lack solvent. "Where a product-by-process claim is rejected over a prior art product that appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product." *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-293 (Fed. Cir. 1983). Appellants point to the specification at page 17, lines 30-31 which states: "In addition, compositions having very different properties can be obtained depending on the method used [, i.e. solvent-less or solvent-based]." This statement does not, in the absence of objective evidence commensurate in scope with the claims, establish that there is, indeed, a difference between the mixture of Birkholz and the claimed mixture.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 38-42 which has not been sufficiently rebutted by Appellants.

Written Description

The Examiner rejects claims 50-57 under 35 U.S.C. § 112, ¶ 1 because these claims lack written descriptive support in the original specification. Specifically, the values "at least 15 wt% (claim 50) and "at least 29 wt%" (claim 51) are said to lack support (Answer at 3).

There is no dispute that the ranges "at least 15 wt%" and "at least 29 wt%" are not recited in the specification. In fact, Appellants themselves state that "[t]he entire application, with the exception of the Examples, is silent as to the wt% of polymer(a) and/or polymer (b)." (Brief at 6). Nor do Appellants rely on any specific recitation of wt% in the Examples as providing support. Rather, Appellants argue that "[i]n light of the absence of any mandated ratio of polymer (a) to polymer (b) in the disclosed mixture, and the vast array of articles which may be manufactured from the mixture, the application as filed conveys to persons skilled in the art that the mixture may contain any ratio of polymer (a) to polymer (b) as necessary and appropriate to achieve the desired properties and characteristics." (Brief at 6).

Appellants are basically arguing that the absence of any discussion of ranges is equivalent to saying that all ranges are described. We do not agree. The specification fails to even state that all ranges are encompassed. Nor do Appellants give any indication that any particular amounts are a part of their invention. "While the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of one skilled in the art, all limitations must appear in the specification." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). We note the statutory requirement: "The ***specification*** shall contain a written description of the invention." 35 U.S.C. § 112, ¶ 1(1998)(emphasis added). One skilled in the art, reading the original disclosure, must reasonably discern the

limitation at issue in the claims. *Waldemar Link GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 558, 31 USPQ2d 1855, 1857(Fed. Cir. 1994). If the written description does not use precisely the same terms used in a claim, the question then is whether the specification directs or guides one skilled in the art to the subject matter claimed. *See In re Ruschig*, 379 F.2d 990, 994-995, 154 USPQ 118, 122 (CCPA 1967); *see also Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1326, 56 USPQ2d 1481, 1486 (Fed. Cir. 2000). In the present case, the required guidance is not present in the specification.

Appellants cite *In re Werthiem*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), in support of their position that the absence of a range disclosure provides support, but that case involved different facts. As acknowledged by Appellants (Brief at 6), in *Werthiem*, the application disclosed a range of 25% to 60% which encompassed the claimed range of 35% to 60% and recited specific examples at 36% and 50%. *Werthiem*, 541 F.2d at 264, 191 USPQ at 98. In the present case, Appellants acknowledge that the original disclosure is entirely silent as to any range and Appellants do not rely on any amounts specified in the Examples. A total lack of description does not give Appellants free rein to claim everything encompassed by silence. Here, Appellants do not even describe a forest, much less provide any blaze marks marking the path through the forest to a grove of trees representing the ranges of the claims. *See Ruschig*, 379 F.2d at 994-995, 154 USPQ at 122; *see also Purdue Pharma*, 230 F.3d at 1326, 56 USPQ2d at 1486. We agree with the Examiner that the written descriptive support relied upon by Appellants is insufficient to meet the requirements of 35 U.S.C. § 112, ¶ 1.

CONCLUSION

To summarize, the decision of the Examiner to reject claims 1, 3, 6, 21, 24-26, and 38-42 under 35 U.S.C. § 103(a) and claims 50-57 under 35 U.S.C. § 112, ¶ 1 is affirmed.

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

AFFIRMED

BRADLEY R. GARRIS	)
Administrative Patent Judge	)
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	)
	) BOARD OF PATENT
CATHERINE TIMM	) APPEALS
Administrative Patent Judge	) AND
	) INTERFERENCES
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JAMES T. MOORE	)
Administrative Patent Judge	)

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