

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOACHIM WERNER, SCOTT A. KANE,
HERMAN P. DOERGE and ERIC F. BOONSTRA

Appeal No. 1998-1125
Application No. 08/410,247

ON BRIEF

Before, KIMLIN, OWENS, and KRATZ, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-8, which are all of the claims pending in this application.

BACKGROUND

Appellants' invention relates to a composition consisting essentially of perfluorohexane and n-pentane or 2-methyl butane in specified amounts. The composition is described as possessing azeotropic attributes by appellants. The composition is disclosed as being useful as a blowing agent in

the production of foams and for solvent cleaning applications (specification, pages 4 and 5). An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. An azeotropic composition consisting essentially of
 - a) from about 26 to about 72% by weight perfluorohexane and
 - b) one compound selected from the group consisting of
 - 1) from about 36 to about 74% by weight 2-methyl butane or
 - 2) from about 28 to about 53% by weight n-pentane in which the sum of the weight percent of a) plus weight percent b) is approximately 100 percent.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Smits et al. (Smits I) 1993	5,250,579	Oct. 05,
Smits et al. (Smits II) 1994	5,286,759	Feb. 15,

Claims 1-8 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 1, 2, 4, 6 and 8 stand rejected under 35 U.S.C. § 102 as anticipated by Smits

II. Claims 1-6 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Smits II. Claims 1-6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Smits I.

Since appellants do not argue any of the claims separately as they are grouped with respect to each of the above-noted grounds of rejection (brief, page 3), our focus here is primarily limited to the application of each separate ground of rejection to one claim within each grouping, in this case the subject matter defined by independent claim 1. See 37 CFR § 1.192(c)(7) and (c)(8) (1995).

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. This review leads us to conclude that the examiner's § 112, second paragraph rejection and the § 103 rejection over Smits I are not sustainable. However, we shall sustain the examiner's rejections based on Smits II. Our reasoning follows.

Rejection Under 35 U.S.C. § 112, second paragraph

The relevant inquiry under 35 U.S.C. § 112, second paragraph, is whether the claim language, as it would have been interpreted by one of ordinary skill in the art in light of appellants' specification and the prior art, sets out and circumscribes a particular area with a reasonable degree of precision and particularity. See In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971).

With regard to the appealed claims, the examiner (answer, pages 3 and 4) argues that:

Said claims are indefinite in failing to recite either the boiling point at a specified pressure or the vapor pressure at a specified temperature to define the azeotropic or azeotropic-like compositions.... A single boiling point (at a particular pressure) is the characteristic by which the presence or absence of an azeotrope is determined. Therefore by failing to define this critical, defining characteristic applicant fails to particularly point out and distinctly claim the inventive subject matter.

The examiner, however, does not carry the burden of persuasively explaining why the language of the appealed claims, as it would have been interpreted by one of ordinary skill in the art in light of appellants' specification, drawings and the prior art, fails to set out and circumscribe

a particular area with a reasonable degree of precision and particularity.

We give the terms of the appealed claims their ordinary meaning unless we find that another meaning is intended by appellants. See In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1996). Here, as explained by appellants in their specification (page 6, lines 12-26), any of the compositions made up of the specified components in the specified amounts have "properties which are characteristic of a true binary azeotrope." While we are cognizant that appellants offer a more conventional and perhaps more limiting definition of "azeotrope" at page 9, lines 3-7) of their specification, it is clear from the specification as a whole that appellants use the term "azeotropic" in their claims to embrace all of the compositions that include the claimed specified components in the specified amounts. In this regard, we note that the specification makes manifest that mixtures that do "not tend to fractionate to any great extent upon evaporation" (specification, page 6, lines 18-20) are included within

appellants' definition of "azeotropic." This expansive definition of "azeotropic" is in accord with appellants' use of components of "normal commercial purity (i.e., at least 95%)" (specification, page 6, lines 8-10) in forming their so called azeotropic composition. Also see appellants' brief, page 4, lines 3-11.

Since we find appellants' claims reasonably definite, we will not sustain the examiner's rejection of the appealed claims under 35 U.S.C. § 112, second paragraph.

§ 103 Rejection of claims 1-6 over Smits I

The examiner refers to column 6, lines 5-13 and example 1 of Smits I ('579) for allegedly suggesting the use of pentanes and perfluorocarbons as blowing agents in producing a cellular polymer (answer, page 6). The examiner acknowledges that Smits I does not disclose the use of a blowing agent having components in the proportions as required by appellants' claims. According to the examiner, "one of ordinary skill in the art would have been motivated to optimize the relative proportions of components to achieve an effective blowing agent" (sentence bridging pages 6 and 7 of the answer).

We note that example 1 of Smits I refers to a foam formulation that includes perfluorohexane and isopentane among other foam components whereas appealed claims 1-6 all require an azeotropic composition consisting essentially of perfluorohexane and either n-pentane or 2-methyl butane in specified amounts. Even if we could agree with the examiner that it would have been obvious to optimize the relative component proportions of perfluorohexane and isopentane (2-methyl butane) in the example 1 formulation prior to addition to the other foam forming materials, the examiner has not

carried the burden of establishing that such optimization would have resulted in the herein claimed azeotropic formulation. In this regard, the examiner has not established that Smits I suggests optimization to achieve such an azeotropic mixture. Accordingly, we shall not sustain this rejection.

§ 102 Rejection of claims 1, 2, 4, 6 and 8 over Smits II

The examiner (answer, page 5) has found that Smits II (Smits '759) exemplifies the use of a mixture of n-pentane and perfluorohexane in weight percent amounts of 35 and 65, respectively as a blowing agent in sample 4.4 of Example 4. Appellants' representative claim 1 is inclusive of such a composition by calling for from about 26 to about 72% by weight of perfluorohexane and from about 28 to about 53% by weight of n-pentane as one optional azeotropic mixture. As such, we agree with the examiner that Smits II anticipates, prima facie, the composition required by representative claim 1.

Of course, the blowing agent mixture that was purposefully made in example 4.4 of Smits II would be azeotropic as defined by appellants in their specification,

page 12, lines 12-26. Hence, appellants' argument to the extent it is based on the premise that Smits II does not disclose an azeotropic mixture in the component amounts covered by representative appealed claim 1 (brief, page 6) is simply not convincing. Moreover, we do not agree with appellants' interpretation of Smits II as not describing that a mixture of the blowing agent components is prepared for use as the blowing agent mixture or that the blowing agent mixture described in example 4.4 of Smits II is accidental (brief, pages 7-9). Smits II specifically describes the blowing agent mixture as purposefully containing first and second components (column 2, line 52-60) and hence the example 4.4 mixture would have clearly conveyed to one of ordinary skill that such a two component mixture was being described as the blowing agent mixture. Appellants' reference to the intent of Smits II (reply brief, pages 4-6) is clearly not germane to the propriety of the examiner's rejection to the extent that rejection is based on the anticipatory disclosure in example 4.4. Indeed, as acknowledged by appellants (reply brief, page 6, last sentence), that example happens to be within the scope of the rejected appealed claims. Concerning this matter, it

is well settled that the disclosure in the prior art of any value within a claimed range is a complete description and, thus, an anticipation of the claimed range. In re Wertheim, 541 F.2d 257, 267, 191 USPQ 90, 100 (CCPA 1976); Ex parte Lee, 31 USPQ2d 1105, 1106 (Bd. Pat. App. & Int. 1993).

Additionally, we observe that the azeotropic property simply does not serve to distinguish over the prior art, when, as here, it is inherently or intrinsically possessed by the prior art exemplified composition. See In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-434 (CCPA 1977). Moreover, when a claimed product appears to be identical or substantially identical, the burden is on appellants to prove that the product of prior art does not possess characteristics attributed to the claimed product. See In re Spada, 911 F.2d 705, 708-709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

The additional arguments set forth in the supplemental reply briefs regarding the possible presence of water in forming the foam of Smits II are not persuasive since water is described by Smits II (column 7, line 55 through column 8, line 7) as one of several materials used in forming the foam, not as one of the components of the blowing agent mixture

described in example 4.4. Since we agree with the examiner's determination that representative claim 1 is anticipated by Smits II, we shall sustain the § 102 rejection as to all of the rejected claims 1, 2, 4, 6 and 8, which stand or fall together with representative claim 1.

§ 103 Rejection of claims 1-6 and 8 over Smits II

For the reasons set forth above, the examiner has established a prima facie case of anticipation of representative claim 1 which has been insufficiently rebutted by appellants. We observe that a disclosure that anticipates under 35 U.S.C. § 102 also renders a 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). It follows that we shall sustain the examiner's § 103 rejection over Smits II as to all of the rejected claims 1-6 and 8, which stand or fall together with representative claim 1, as discussed above. Moreover, it is well settled that when a claimed product appears substantially the same as

a product disclosed by the prior art, the burden is properly upon the applicants to prove with objective evidence that the prior art product does not necessarily or inherently possess characteristics attributed to the claimed product. See In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980). This is the case whether the rejection is based on 35 U.S.C. § 102 or § 103. See In re Best, 562 F.2d 1252, 1254-55, 195 USPQ 430, 433 (CCPA 1977). This, the appellants have not done.

CONCLUSION

The decision of the examiner to reject claims 1-8 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and to reject claims 1-6 under 35 U.S.C. § 103 as being unpatentable over Smits I is reversed. The decision of the examiner to reject claims 1, 2, 4, 6 and 8 under 35 U.S.C. § 102 as anticipated by Smits II and to reject claims 1-6 and 8 under 35 U.S.C. § 103 as being unpatentable over Smits II 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-IN-PART

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
TERRY J. OWENS)	APPEALS
Administrative Patent Judge)	AND
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APPEAL NO. - JUDGE KRATZ
APPLICATION NO.

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DECISION: **ED**

Prepared By:

DRAFT TYPED: 20 May 02

FINAL TYPED: