

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICCARDO BALLONI, MICHAEL T. HEFFELFINGER,
MARK W. LOCKHART, ROBERT G. PEET
and EILEEN A. STETTER

Appeal No. 96-3690
Application 08/234516¹

ON BRIEF

Before JOHN D. SMITH, WEIFFENBACH and ELLIS, *Administrative Patent Judges*.

WEIFFENBACH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 14-19, which are all of the claims remaining in the application. We affirm.

The Claimed Subject Matter

¹ Application for patent filed April 28, 1994. According to appellants, the application is a continuation of Application 07/947,231 filed September 18, 1992, now abandoned.

The claims on appeal are directed to a method of preventing the transmission of odors and unpleasant flavors to a product using an oriented film which comprises a blend of polypropylene and a polymerized polyterpene. Claims 14, 17 and 19 are representative of the claimed subject matter and read as follows:

14. A method for preventing the transmission of odors and unpleasant flavors to a product comprising sealing said product in an oriented film of a blend of polypropylene and a polymerized polyterpene selected from the group consisting of polymerized d-limonene, polymerized beta-pinene, and mixtures thereof, said polyterpene being present in an amount sufficient to act as an effective odor and flavor barrier when blended with polypropylene.

17. The method of claim 14 wherein said polymerized polyterpene is polymerized d-limonene.

19. The method of claim 14 wherein said polymerized polyterpene is a mixture of polymerized d-limonene and beta-pinene.

References of Record

The following references of record are relied upon by the examiner in support of the rejection of the claims:

Isaka et al. (Isaka)	4,230,767	Oct. 28, 1980
Bothe	5,151,317	Sep. 29, 1992

The Rejections

Claims 14-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Isaka.

Claims 14-19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Isaka.

Claims 14-19 stand rejected under 35 U.S.C. § 103 as being obvious in view of Bothe.

Opinion

We have carefully considered the respective positions advanced by appellants and the examiner. For the reasons set forth below, we reverse the rejection under 35 U.S.C. § 102 and affirm the examiner's rejections under 35 U.S.C. § 103.

At the outset, we note that appellants state on page 3 of the brief that the claims do not stand or fall together. Appellants have grouped the claims as follows: Group I - claims 14-16 and 18, and Group II - claims 17 and 19. Accordingly, claims 15, 16 and 18 will stand or fall with claim 14 while claims 17 and 19 will be considered to the extent that separate patentability has been argued in accordance with 37 CFR § 1.192(c)(8)(iv) (1995).

ANTICIPATION BY ISAKA

The examiner rejected claims 14-16 and 18 under 35 U.S.C. § 102(b) as being anticipated by Isaka. On pages 1 and 2 of the specification, appellants summarize their invention as follows:

The invention relates to the packaging of a product capable of absorbing unwanted odors and unpleasant flavors, or a product containing desirable flavor and aroma characteristics, that are to be retained. The package employs an oriented film of a blend of polypropylene and a member selected from the group consisting of polymerized d-limonene, polymerized beta-pinene, or a polymerized synthetic approximation of d-limonene and beta-pinene and mixtures thereof, to exclude unwanted odors or flavors and to retain those that are desirable. The present invention is also concerned with a method for preventing the transmission of odors and flavors into or out of a product, when the product is packaged in an oriented film of a blend of polypropylene and a member selected from the group consisting of polymerized d-limonene, polymerized beta-pinene, and polymerized synthetic approximation of d-limonene and beta-pinene and mixtures thereof.

It is preferred that the film structures identified above include a heat-sealable skin layer comprising a polyolefin of comparatively low stereoregularity on at least one surface thereof.

The subject matter recited in claim 14 is directed to a method of sealing a product with a film comprising "an oriented film of a blend of polypropylene and a polymerized polyterpene selected from the group consisting of polymerized d-limonene, polymerized beta-pinene, and mixtures thereof, said polyterpene being present in an amount sufficient to act as an effective odor and flavor barrier when blended with polypropylene." Thus, the oriented film, as defined in the claim, has the property of acting as a barrier for preventing the transmission of odors and flavors into or out of a product.

Isaka discloses a process which comprises sealing products with a packaging material using an automatic sealing or packaging machine (col. 10, lines 12-45). The packaging material comprises a base layer consisting of a stretched (i.e., oriented) film made of polypropylene and a surface layer consisting of a stretched film made of a polymer blend (col. 2, lines 60-66). The polymer blend can be a copolymer of ethylene and propylene (col. 2, lines 44-48). Isaka discloses and claims that the base layer and the surface layer can further include a low molecular weight thermoplastic resin which includes, *inter alia*, hydrocarbon resins, rosins, dammars and phenolic resins to “improve the characteristic properties” (col. 2, lines 60-67; col. 3, lines 24-53; claims 3, 24, 34, 35, 46 and 47). The hydrocarbon resins include polymers of terpene resins (col. 3, line 54 to col. 4, line 31). Among the terpene polymers specifically disclosed by Isaka are limonene, alpha-pinene and beta-pinene (col. 4, lines 25-29).

On this record, we do not find that Isaka presents a *prima facie* case of anticipation. While Isaka fairly teaches and suggests sealing a product with an oriented polypropylene packaging material which comprises an oriented film of polypropylene to which is blended a terpene resin polymer such as beta-pinene or limonene (col. 1, lines 11-12; col. 3, lines 5-30 col. 4, lines 25-29), the reference does not rise to the level of an anticipation of the claimed subject matter. The examiner has not set forth a proper analysis of Isaka to explain why a person having ordinary skill in the art would judiciously select beta-pinene and/or limonene from the genus of terpenes disclosed by Isaka. *In re Sivaramakrishnan*, 673 F.2d 1383,

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1385, 213 USPQ 441, 442 (CCPA 1982). While some picking and choosing may be entirely proper in establishing obviousness, it has no place in making an anticipation rejection under 35 U.S.C. § 102. *In re Arkley*, 455 F.2d 586, 587-88, 172 USPQ 524, 526 (CCPA 1972). For the foregoing reasons, we reverse the examiner's rejection of claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Isaka.

OBVIOUSNESS OVER ISAKA

The examiner rejected claims 14-19 under 35 U.S.C. § 103 as being unpatentable over Isaka. Claim 14 is directed to a method of sealing a product with a packaging material comprising an oriented film of polypropylene and a polymerized terpene resin of d-limonene or beta-pinene or mixtures thereof. This method is taught by Isaka who suggests sealing products with a film of packaging material comprising a base layer of oriented polyethylene to which is blended a low molecular weight thermoplastic resin such as polymers of alpha-pinene, beta-pinene and limonene (col. 1, lines 11-12; col. 3, lines 5-30; col. 4, lines 25-29). In addition to having components similar to appellants' claimed composition, Isaka discloses that the amount of polyterpene in the polypropylene composition can range from 3 to 25% by weight. Appellants claim that the amount of terpene must be in an amount sufficient to act as an effective odor and flavor barrier when blended with polypropylene. According to page 3 of appellants' specification, this amount would be in the range of 1-20% by weight. This range substantially overlaps the range disclosed by Isaka. Thus, it would appear from these facts that the claimed oriented polypropylene film is substantially similar to that suggested by Isaka

and that claimed process is substantially similar to that disclosed by Isaka.

Appellants argue that Isaka “provides no guidance to one skilled in the art that the addition of terpenes to the polypropylene resin provides enhanced odor and flavor barrier properties to the resulting film product employed in the claimed process” and that the claimed “method for excluding odors and unwanted flavors from a product is nowhere disclosed or even suggested by Isaka et al.” (brief: p. 4). We are not persuaded by this argument because merely discovering and claiming a new benefit of an old process cannot render the process unobvious over the prior art. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990); *In re Wilder*, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970). Moreover, while Isaka discloses that his packaging composition has excellent heat seal properties, we agree with the examiner that the retention of fragrance and odor is a property of interest to Isaka which is to be retained in the improved film. At column 1, lines 20-30, Isaka states:

In recent years, highly advanced requirements have been made in external packaging of a variety of products such as foods, tobaccos, industrial goods and daily miscellaneous goods. In the package of foods, for example, materials for external packaging are required to be excellent in various properties such as low moisture permeability, fragrance-retention, insect proofness and low oxygen-permeability. It is also necessary that the packaging material forms an adequate heat seal with sufficient adhesion and air tightness at any piled portion caused by film wrinkling.

It is well settled that a composition and its properties are inseparable. *See In re Papesch*, 315 F.2d 381, 391, 137 USPQ 43, 51 (CCPA 1963). Accordingly, in view of the substantial

similarity in the composition of the claimed oriented polypropylene film to that disclosed by Isaka, a person having ordinary skill in the art would have expected that Isaka's packaging material would have the same or similar properties to that asserted by appellants. Moreover, even assuming that appellants have discovered an unexpected property of the packaging material defined in their claims, this, in and of itself, is not enough to make the claimed subject matter unobvious. *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Appellants must establish (i) that there is a difference between the results obtained for the claimed method and that of Isaka and (ii) that the difference is significant and would not have been expected by one of ordinary skill in the art. *In re Freeman*, 474 F.2d 1318, 1324, 177 USPQ 139, 143 (CCPA 1973); *In re D'Ancicco*, 439 F.2d 1244, 1248, 169 USPQ 303, 306 (CCPA 1971).

Appellants point to Example 3 in the specification as showing that a polypropylene film blended with alpha-pinene does not function effectively as odor barrier to toluene when compared to films comprising polypropylene mixed with beta-pinene and d-limonene. Appellants' claim 14 states that the polyterpene is "present in an amount sufficient to act as an effective odor and flavor barrier when blended with polypropylene." The "odor and flavor" referred to in the claim is not limited to toluene, but to aromatic oils. On page 3 of the specification, appellants state that

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[w]e have discovered a comparative few compounds [beta-pinene and d-limonene] which are effective in reducing the migration of aromatic oils when used in an admixture with polypropylene polymers. Oriented films made from these blends of polymers effectively prevent, for example, cigarette packages that are sold in gasoline station displays from picking up hydrocarbon odors, lemon-flavored cookies from losing their fresh-baked, lemon flavor and scent, etc.

Accordingly, we do not find appellants' evidence as per Examples 1-3 to be commensurate in scope with the claims. See *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983); *In re Clemens*, 622 F.2d 1029, 1035, 206 USPQ 289, 296 (CCPA 1980). Appellants* claimed invention encompasses odors and flavors derived from any aromatic oil and possibly other compounds, not just toluene. See *In re Lindner*, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972); *In re Susi*, 440 F.2d 442, 445-446, 169 USPQ 423, 426 (CCPA 1971).

Appellants further argue that the prior art relied upon by the examiner fails to disclose or suggest a process for using the specific terpene's specified in claims 17 and 19, namely, polymerized d-limonene and a mixture of polymerized d-limonene and beta-pinene, for preventing the transmission of odors and unwanted flavors. The examiner stated that Isaka does not teach the use of d-limonene and relies on *In re Durden*, 763 F.2d 1406, 226 USPQ 359 (Fed. Cir. 1985) and *Ex parte Kifer*, 5 USPQ2d 1904 (Bd. Pat. App. & Int. 1987) to support his position of obviousness. We disagree with the examiner's application of *Durden* and *Kifer*. See *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995). To the

contrary, we find that Isaka's disclosure includes d-limonene. Isaka discloses limonene and this would necessarily, by definition, include the known three forms of limonene, namely, dl-limonene (optically inactive), d-limonene and l-limonene.² Therefore, we conclude that limonene as disclosed by Isaka would be suggestive of all forms of limonene, including d-limonene. As for the mixture of d-limonene and beta-pinene, it would have been *prima facie* obvious to combine two ingredients in a polymer, each of which is taught by the prior art to be useful for the same purpose in the polymer, in order to form another polymer composition which is to be used for the same purpose. See *In re Kerkhoven*, 626 E.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Isaka suggests that either limonene or beta-pinene can be used for the same purpose, i.e., to improve the properties of the polypropylene film. Accordingly, a person having ordinary skill in the art would have reasonable expectation that limonene and beta-pinene could be combined for the same purpose and produce the same result. *In re O*Farrell*, 853 F.2d 894, 904, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988) (for obviousness under § 103, all that is required is a reasonable expectation of success). Having concluded that it would have been *prima facie* obvious to combine limonene and beta-pinene, we look to any evidence to show that the combination produces unexpected results. On this record, appellants have not pointed to or made a showing that the combination of d-limonene and beta-pinene produces a synergistic or unexpected result.

²*The Merck Index*, 10th Edition, Merck & Co., Inc, Rahway, N.J., p. 788, monograph no. 5321 (1983). According to the *Index*, limonene has a pleasant lemon-like odor and can be used as a solvent in the manufacture of resins.

Accordingly, we conclude that the teachings of Isaka establish a *prima facie* case of obviousness with regard to the rejection of claims 14-19 under 35 U.S.C. § 103. On consideration of all the evidence of record, we must conclude that the greater weight favors unpatentability. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993); *In re Piasecki*, 745 F.2d 1468, 1471-1473, 223 USPQ 785, 787-788 (Fed. Cir. 1984); *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). Accordingly, we affirm the examiner's rejection of claims 14-19 under 35 U.S.C. § 103 over Isaka. However, because our rationale for affirming claims 14-19 differs from that of the examiner, we denominate our affirmance as a new rejection to afford appellants the procedural safeguards associated with 37 CFR § 1.196(b).

OBVIOUSNESS OVER BOTHE

Claims 14-19 stand rejected under 35 U.S.C. § 103 as being obvious in view of Bothe who discloses a multilayered biaxially oriented multilayered polypropylene film wherein each layer can include 3-15% by weight of a terpene such as alpha-pinene, beta-pinene and limonene to improve properties of the film (abstract; col. 2, line 52 to col. 3, line 31; col. 3, line 63 to col. 4, line 2; col. 4, lines 32-39 and 63-65). Appellants argue that Bothe is silent as to the function of the terpene resins and that Bothe provides no guidance for selecting beta-pinene and/or limonene from the list of terpene resins which include, *inter alia*, alpha-pinene, dipentene, myrcene, bornylene and camphene. We have considered these arguments, but do not find them convincing because a fair reading of the reference would have reasonably

led a person having ordinary skill in the art to the claimed subject matter.

Although Bothe does not disclose the specific properties which are improved by adding terpenes to the polypropylene, there is a suggestion by Bothe to blend low-molecular weight terpene resins such as beta-pinene and limonene to any of the propylene layers. The fact that appellants may have discovered the beta-pinene and/or limonene blended with polypropylene exhibits odor barrier properties in a composition which is chemically similar to that disclosed in Bothe, in and of itself, is not enough to make the claimed subject matter unobvious. *In re Woodruff* and *In re Wilder, supra*. There must be a showing of unexpected differences between the properties of the compound recited in the claimed composition and that possessed by Bothe. *In re Spada, supra*. For the reasons discussed above with respect to the rejection of the claims for obviousness over Isaka, on this record we do not find that appellants have not made an adequate showing to rebut the *prima facie* case of obviousness established by the teachings of Bothe. Accordingly, for these reasons, the examiner's rejection of claims 14-19 under 35 U.S.C. § 103 over Bothe is affirmed.

Conclusion

For the foregoing reasons, the examiner's rejection of claims 14-16 and 18 under 35 U.S.C. § 102(b) as being anticipated by Isaka is reversed while the rejection of claims 14-19 under 35 U.S.C. § 103 over Isaka and the same claims under 35 U.S.C. § 103 over Bothe are affirmed. Accordingly, the decision of the examiner is affirmed.

In addition to affirming the examiner's rejection of claims 14-19, this decision contains

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a new ground of rejection of these claims under 35 U.S.C. § 103 over Isaka pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark 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.

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If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment 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

JOHN D. SMITH)	
Administrative Patent Judge)	
)	
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)	BOARD OF PATENT
CAMERON WEIFFENBACH)	
Administrative Patent Judge)	APPEALS AND
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