

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANDREAS HAJEK and THOMAS HECK

Appeal 2008-1964
Application 10/945,176
Technology Center 1700

Decided: May 9, 2008

Before CATHERINE Q. TIMM, ROMULO H. DELMENDO, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1-9, 12-18, and 21-27. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

I. BACKGROUND

The invention relates to a curable molding composition used to make shaped plastic articles, such as kitchen sink units, wash basins, bathtubs, or shower tubs. The curable molding composition comprises a liquid monomeric acrylate component, particulate inorganic material, a hydrophobic monomer component that includes at least one organosiloxane that is functionalized with an unsaturated group and at least one particulate hydrophobic or oleophobic material. Claim 1 is illustrative of the subject matter on appeal:

1. A curable molding composition for the production of shaped plastics articles comprising a liquid monomeric acrylate component and an amount of a particulate inorganic material ranging from 45 to 85 wt%, based on the molding composition, wherein said molding composition also comprises a hydrophobic monomeric component which comprises at least one organosiloxane that is functionalized with an unsaturated group and further comprises at least one particulate hydrophobic and/or oleophobic material comprising polytetrafluoroethylene, a fluorocarbon elastomer based on poly(vinylidene fluoride-co-hexafluoropropylene)s, polypropylene, a polypropylene copolymer, hydrophobed silicic acid, or a silicone elastomer.

The Examiner relies on the following prior art references to show unpatentability:

Hajek '253	US 6,841,253 B2	Jan. 11, 2005
Feldmann-Krane	US 6,297,331 B1	Oct. 2, 2001
Hajek '175	WO 01/27175	Apr. 19, 2001

The Examiner made the following rejections¹:

¹ The Examiner has withdrawn all the rejections based on U.S. Patent No. 6,028,127 to Yanagase and U.S. Patent No. 5,385,988 to Yamamoto (Ans. 2).

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1. Claims 1-9, 12-18, and 21-27 under 35 U.S.C. § 103(a) as obvious over International Application Publication No. WO 01/27175 (“Hajek ‘175”) in view of US Patent No. 6,297,331 to Feldmann-Krane;
2. Claims 1-9, 12-18, and 21-27 under 35 U.S.C. § 103(a) as obvious over US Patent No. 6,841,253 to Hajek (“Hajek ‘253”) in view of Feldmann-Krane;
3. Claims 1-9, 12-18, and 21-27 under the doctrine of non-statutory obviousness-type double patenting over claims 1-13 of Hajek ‘253 in view of Feldmann-Krane.

Initially, Appellants’ arguments are directed to claim 1. (App. Br. 25-26). Appellants then argue that the cited references alone or together do not disclose or suggest Appellants’ shaped plastic articles specifically recited in claims 15-18, 21-22, and 27. (App. Br. 27). Appellants then specifically refer to the limitations of “a kitchen sink unit” or “a kitchen worktop” called for in claims 18, 22, and 27. (App. Br. 27). For the claims that are not separately mentioned, we select claim 1 as a representative claim. *See* 37 C.F.R. § 41.37(c)(1)(vii) (“When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone.”)

Since Hajek ‘253 is the corresponding U.S. patent to the International application, Hajek ‘175, Hajek ‘253 and Hajek ‘175 (“the Hajek references”) have identical disclosures and the Examiner’s 35 U.S.C. § 103 rejections are based on the same rationale, as is the Examiner’s obviousness-type double patenting rejection. (Ans. 3). Appellants provide identical arguments with

respect to each of the rejections. (App. Br. 25-32). Therefore, we address these arguments only once.

II. DISCUSSION

Appellants argue that there is no motivation or suggestion for combining an organosiloxane with a hydrophobic and/or oleophobic material. (App. Br. 25, 28, and 30). Particularly, Appellants argue that neither of the Hajek references discloses any deficiency that would motivate one of ordinary skill in the art to add the organosiloxane taught by Feldmann-Krane. (App. Br. 25, 28, and 30). Further, Appellants argue that there is no motivation for combining an additive for a thin paint coating of 30-100 μ m of Feldmann-Krane with the molding composition of the Hajek references without a prohibited hindsight analysis. (App. Br. 26, 28-29, and 31).

The Examiner responds that the scope of the teachings of Feldmann-Krane is not limited to the Example paint coating of 30-100 μ m. (Ans. 5-6). The Examiner also points out that a preferred embodiment of the Hajek references has a thickness of 1 mm or more and argues that a coating additive in such a thin layer would have been expected to function similarly to that of the paint coating of Feldmann-Krane. (Ans. 6). The Examiner further states that “[b]oth compositions contain resins and fillers and tend to operate in wet environments, thus they are analogous art.” (Ans. 6).

The issue on appeal arising from the contentions of Appellants and the Examiner is: Have Appellants overcome the rejection by showing that the evidence does not support the Examiner’s determination of obviousness based on combining the organosiloxane paint coating additive taught by

Feldmann-Krane with the molding composition taught by the Hajek references? We answer this question in the negative.

We make the following Findings of Fact (FF) based on the evidence of record:

1. The Hajek references teach a molding composition including “a liquid monomeric acrylate component and a particulate inorganic material, the latter in a concentration of from 45 to 85 wt %” (Hajek², col. 1, ll. 11-14) and “particulate, hydrophobic and/or oleophobic plastics material” (Hajek, col. 1, ll. 60-62) which “is preferably selected from the group comprising polytetrafluoroethylene, fluorocarbon elastomers based on vinylidene fluoride/hexafluoropropylene copolymer, polypropylene, and polypropylene copolymers.” (Hajek, col. 2, ll. 28-32).

2. The Hajek references teach that the molding composition may be only a “face layer” and “the rest of the shaped article is composed of some other molding composition.” (Hajek, col. 2, ll. 47-49). In this case, “it is recommended that the face layer has a thickness of 1 mm or more.” (Hajek, col. 2, ll. 49-51).

3. The Hajek references teach that “[t]he aforementioned curable molding compositions are used to a large extent for the production of shaped plastics articles, particularly in the form of kitchen sink units, wash basins, bathtubs, showertubs, etc, and are distinguished by a number of excellent performance characteristics, particularly relatively good easy-clean characteristics, good abrasion resistance, etc.” (Hajek, col. 1, ll. 20-26).

4. Feldmann-Krane provides “modified polysiloxanes which are suitable for coating compositions.” (Feldmann-Krane, col. 5, ll. 35-36).

² Unless otherwise noted, citations to “Hajek” are to Hajek ‘253.

Feldmann-Krane teaches that the modified polysiloxane compounds provide a dirt-repelling or anti-graffiti action by bringing about a reduction in surface tension in coating compositions. (Feldmann-Krane, col. 4, l. 51-col. 5, l. 39).

5. Appellants' Specification states that “[a]dvantageously, *the molding composition* of the invention further comprises at least one particulate hydrophobic and/or oleophobic material.” (Spec. 4)(emphasis added). The Specification also states that “[p]referably, the hydrophobic and/or oleophobic material will be substantially homogeneously distributed in the regions formed by the molding composition.” (Spec. 6).

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art. 35 U.S.C. § 103(a); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966). Factors to consider in determining obviousness include ““the scope and content of the prior art,”” ““the differences between the prior art and the claims at issue,”” and ““the level of ordinary skill in the pertinent art.”” *Dann v. Johnston*, 425 U.S. 219, 226 (1976) (*quoting Graham*, 383 U.S. at 17, 148 USPQ at 466).

Recently, the Supreme Court set aside any “rigid” application of the teaching, suggestion, motivation (“TSM”) test, advising that: “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742 (2007). The Court instructs us that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S.Ct. at 1739.

Applying the preceding legal principles to the Factual Findings in the record of this appeal, we determine that the Examiner has established a *prima facie* case of obviousness.

The Hajek references teach the molding composition of the claimed invention, with the exception of a hydrophobic monomeric component which comprises at least one organosiloxane. (FF 1). Appellants do not dispute this contention. Feldmann-Krane teaches an organosiloxane for use in a coating composition. (FF 4). Likewise, Appellants do not dispute that utilizing the particular organosiloxane taught by Feldmann-Krane in the molding composition taught by the Hajek references would result in the claimed composition.

The Examiner provided a reasonable motivation for combining the teachings of the prior art references (i.e., that one of ordinary skill in the art would include the organosiloxane compound taught by Feldmann-Krane, which is known to improve dirt repellency, in a molding composition where easy-cleaning is a desirable property). (Ans. 4). The Examiner further provided evidence of a reasonable expectation of success because both the coating taught by Feldmann-Krane and the molding composition taught by the Hajek references are resins that tend to operate in a wet environment and because of the limited thickness requirement of 1 mm of the molding composition when provided as a “face layer”. (Ans. 6; FF 2). The Examiner also reasoned that “the siloxane will have a comparable effect (i.e., reduction) on the surface tension of the curable composition in Hajek et al. as it does on the surface tension of a curable coating composition.” (Ans. 4).

We find the Examiner’s rationale for finding obviousness is based on sufficient evidence in the prior art and has not been sufficiently rebutted by

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Appellants. Therefore, we sustain the Examiner's rejection under 35 U.S.C. § 103.

Appellants provide no evidence that one of ordinary skill in the art having the teachings of an improved soil-repelling compound of Feldmann-Krane would be disinclined or unable to use this compound to further improve the "easy-clean properties" of the molding composition of the Hajek references. *See KSR*, 127 S. Ct. at 1740 (stating that "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill").

Further, Feldmann-Krane need not teach an organosiloxane *and* a particulate hydrophobic and/or oleophobic material, as argued by Appellants. The Hajek references teach the use of a particulate hydrophobic and/or oleophobic material in a molding composition. (FF 1). Appellants have not identified any criticality or unexpected results to utilizing an organosiloxane *and* a particulate hydrophobic and/or oleophobic material in a molding composition. Rather, the Specification identifies the particulate hydrophobic and/or oleophobic material as merely a separate additive to a molding composition. (FF 5).

Regarding Appellants separately addressing claims 14-18, 21-22, and 27, our determination does not change merely because the molding composition is used to form shaped plastic articles, particularly a kitchen sink unit or a kitchen worktop, or because the components impart easy-clean properties to the articles, all features which are clearly taught by the Hajek references. (FF 3).

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III. CONCLUSION

Based on the totality of record, including due consideration of the Appellants' arguments, we determine that the preponderance of evidence weighs most heavily in favor of obviousness. Accordingly, we affirm the Examiner's decision rejecting the claims on appeal under 35 U.S.C. § 103 and obviousness-type double patenting.

IV. DECISION

The decision of the Examiner is affirmed.

V. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

PL initial:
sld

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