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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WHIRLPOOL CORPORATION

Appeal 2015-007069
Application 14/160,807
Technology Center 1700

Before MARK NAGUMO, KAREN M. HASTINGS, and
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

Opinion for the Board by HASTINGS, *Administrative Patent Judge*.

Opinion dissenting by NAGUMO, *Administrative Patent Judge*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1–12 under 35 U.S.C. § 103(a) over at least Cooper (US 6,492,322 B1, Dec. 10, 2002).¹ We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

Claim 1 is illustrative of the subject matter on appeal:

¹ The Examiner applies additional prior art references to dependent claims 6-8 and 10 (Final 6, 7; Ans. 3-5).

1. A laundry treatment composition for reducing dye transfer from laundry during a treating cycle of operation in a laundry treating appliance, comprising:

a first dye transfer inhibitor (DTI) comprising a polymer having cationic functional groups and having a weight average molecular weight greater than 200 kDa;

a second DTI comprising a cationic polymer having a weight average molecular weight less than 10 kDa and greater than 1 kDa; and

a third DTI comprising at least one of a polymer or monomer having a cationic functional group or a cationic surfactant having a weight average molecular weight less than 1 kDa.

ANALYSIS

We have reviewed each of Appellants' arguments for patentability. Appellants have not shown reversible error in the Examiner's determination that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections for essentially those reasons expressed in the Answer, including the Response to Argument section, and we add the following primarily for emphasis.

In assessing whether a claim to a combination of prior art elements would have been obvious, the question to be asked is whether the improvement of the claim is more than the predictable use of prior art elements according to their established functions. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). The analysis need not seek out precise teachings directed to the specific subject matter of the claim, for it is proper

to take account of the inferences and creative steps that a person of ordinary skill in the art would employ. *Id.* at 418.

“For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O’Farrell*, 853 F.2d 894, 903–04 (Fed. Cir. 1988).

Appellants’ main argument is that Cooper does not explicitly describe that its composition is composed of three dye transfer inhibitors with the recited tri-modal molecular weight distribution (Br. 7, 8), and that the examiner is using an improper “obvious to try” rationale (Br. 9-14). These arguments are not persuasive for reasons articulated by the Examiner (Ans. 6–8) and because they fail to consider the prior art as a whole.

As pointed out by the Examiner, Cooper discloses as appropriate components of a laundry treating composition *mixtures* of cationic polymers (more than one polymer) having molecular weights that are encompassed by claim 1’s first and second DTI since it encompasses a mixture of different cationic polymers (one with a molecular weight at the lower side of the range and another at the higher end of the molecular weight range), and also teaches that its cationic polymers provide benefits such as dye transfer inhibition (Cooper Abstract; e.g., col. 23, ll. 47-58; Ans. 7). Indeed, Cooper gives a reason for using a mixture of polymers with different properties in the same composition in order to adjust the overall composition’s physical properties. (*Id.* at col. 23, ll. 47-53). Cooper also describes distinct benefits to cationic polymers having molecular weights on the upper and lower ends of the disclosed range (Cooper 7:7–16 (explaining that a lower molecular weight generally allows greater substitution which is desirable, whereas higher molecular weight is also desirable)).

The Examiner also points out that Cooper teaches the use of a cationic surfactant that is encompassed by claim 1's third DTI (Cooper col. 25, ll. 1-45; Ans. 7). Indeed, Appellants' "non-limiting examples" of the third DTI cationic surfactant are quaternary ammonium surfactants similar to those disclosed by Cooper (compare Spec ¶ 164 to Cooper col. 25, ll. 1-42). Thus, the Examiner's de facto determination that Cooper's cationic surfactants, as well as its cationic polymers, would possess the dye transfer inhibiting function and molecular weight as recited in claim 1 was reasonable. *Cf. In re Spada*, 911 F.2d 705, 708 (Fed Cir. 1990) (when a claimed product reasonably appears to be substantially the same as a product disclosed by the prior art, the burden is on the applicant to prove that the prior art product does not necessarily or inherently possess characteristics attributed to the claimed product, and that it is of no moment whether the rejection is based on § 102 or § 103 since the burden on the applicant is the same).

Appellants' arguments that the list of cationic polymers in Cooper is too long is not persuasive of error. The length of the list is not determinative of obviousness. *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) ("That the [prior art] patent discloses a multitude of effective combinations does not render any particular formulation less obvious."); *In re Corkill*, 771 F.2d 1496, 1500 (Fed. Cir. 1985) (affirming obviousness rejection of claims in light of prior art teaching that "hydrated zeolites will work" in detergent formulations, even though "the inventors selected the zeolites of the claims from among 'thousands' of compounds"). Furthermore, Appellants' "non-limiting examples" for its first, second and third dye inhibitors likewise encompass many cationic polymers (e.g., Spec. ¶¶ 162-164), and the claims require only a minor amount of each of the three

components. To render an invention obvious, the prior art does not have to address the same problem addressed by a patent applicant. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007); *see also, In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992) (“As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor.”).

Thus, in our view, one of ordinary skill would have considered the use of the three components of Appellants’ composition obvious from the explicit teachings set out in Cooper. It is also noted that Appellants do not rely upon any evidence of unexpected results (Br. *generally*). Thus, a preponderance of the evidence supports the Examiner’s determination that claim 1 encompasses Cooper’s laundry treatment composition that may comprise polymers having the required functional groups and molecular weights and a cationic surfactant as recited in claim 1.

Appellants similarly argue that the use of a nonionic fixative as recited in dependent claims 6-8 is not rendered obvious by the combined teachings of Cooper with either of Panandiker 165 (US 2008/0234165 A1, Sep. 25, 2008) or Wahl (US 2009/0178212 A1, pub Jul. 16, 2009) (Br. 19-25). This argument is unavailing as it fails to consider that both of these references evinces the use of anionic polymers in laundry treating compositions similar to Cooper (e.g., Ans. 4, 5, 8, 9; also, compare the applied prior art’s anionic polymers to Appellants’ non-limiting examples of anionic fixatives Spec. ¶166). The properties recited in dependent claims 7 and 8 would have reasonably been expected from the use of similar cationic and anionic polymers as encompassed by the claims. Appellants have not

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shown error in the Examiner's de facto determination that the use of such an anionic polymer would have been no more than the predictable use of a known material for its known advantages in laundry treating compositions as exemplified in the applied prior art. *KSR*, 550 U.S. at 417, 420; *In re Beattie*, 974 F.2d at 1312.

Appellants do not provide any substantive additional argument regarding the additional rejection of dependent claim 10 (Br. 25).

Accordingly, a preponderance of the evidence supports both of the Examiner's rejections, and we sustain the § 103 rejections of all the claims on appeal.

DECISION

The decision of the Examiner is affirmed.

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

AFFIRMED

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In my view, the evidence advanced by Appellants is far more probative of non-obviousness than the evidence advanced by the Examiner in favor of obviousness. Put another way, I would credit Appellants with candor, having pointed specifically the best support in Cooper for the rejection (“[o]f course, mixture of any of the above described cationic polymers can be employed, and the selection of individual polymers or of particular mixtures can be used to control the physical properties of the compositions such as their viscosity and the stability of the aqueous dispersions.” (Cooper, col. 23, ll. 48–52.) This statement, however, merely indicates that many mixtures are possible—it does not provide a positive reason to make any mixtures, in particular mixtures of polymers having Mw

of about 1,000 to about 10,000 Da, and polymers having an Mw of more than 200 kDa.

The Examiner builds on this disclosure (Ans. 6–8) and edges in the direction of a prima facie case of obviousness.

While one might further strengthen the position for obviousness by identifying certain high molecular weight polymers (ammoniated guar gum (Cooper, col. 12, ll. 5–10); and Eudragit E (*id.* at col. 13, ll. 15–18)), as well as the particularly preferred range of about 1,000 to about 10,000 (*id.* at col. 7, l. 10; and col. 12, ll. 33–36 (cationic dextrans as scavengers for anionic surfactants)) disclosed by Cooper, there remains, in my view, no good answer to Appellants’ criticism that Cooper fails to recognize a problem or need in the art (Br. 10–12) for trimodal distributions of dye transfer inhibitors, or even bimodal distributions of polymers meeting the requirements of DT1 and DT2. The Examiner has failed to demonstrate that Cooper discloses a finite number of identified, predictable solutions to any problem recognized by the prior art. (*Id.* at 12–14). The broad reasons indicated by the Majority (Op. 3, last paragraph), lack, in my view, the specificity to make up for the lack of a particular reason to modify the compositions described by Cooper. Enablement is not a proxy for obviousness.

Accordingly, on the present record, I find Appellants’ arguments persuasive of harmful error in the appealed rejections, and I dissent, respectfully, from the affirmance.

I would reverse the rejections of record.