

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* INGE KRUSE, THOMAS RASCHKE, JENS-PETER VIETZKE,  
and JULIA ECKERT

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Appeal 2008-1011  
Application 11/001,224  
Technology Center 1600

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Decided: June 6, 2008

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Before ERIC GRIMES, RICHARD M. LEBOVITZ, and JEFFREY N.  
FREDMAN, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134 involving claims to a dermatological preparation which the Examiner has rejected as lacking written descriptive support and obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

*Background*

“Cosmetic skin care is primarily understood as meaning that the natural function of the skin as a barrier against environmental influences . . . and against the loss of substances intrinsic to the body . . . is strengthened or restored” (Spec. 1). The Specification notes that for “beauty and well-cared appearance of the skin, the proportion of water in the uppermost skin layer is of greatest importance. It is possible to influence the proportion of water favorably and to a limited extent by introducing moisture regulators” (Spec. 2). According to the Specification, the “effect of ointments and creams on the barrier function and hydration of the horny layer does not normally comprise a restoration or strengthening of the physicochemical properties of the lamellae from intercellular lipids” (Spec. 3).

The Specification teaches that it “would be advantageous to find ways of avoiding the disadvantages of the prior art. In particular, the effect of eliminating the damage associated with the endogenous, chronological and exogenous aging of the skin and the prophylaxis should be lasting, sustained and without the risk of side effects” (Spec. 12).

*Statement of the Case*

*The Claims*

Claims 1, 4-26, 28-40, and 43-45 are on appeal. We will focus on claims 1, 6, 19, and 43, which are representative and read as follows:

1. An active substance combination comprising
  - (a) at least one of licochalcone A and an extract of *radix glycyrrhizae inflatae* that comprises licochalcone A,
  - (b) phenoxyethanol, and
  - (c) optionally, glycerin;

wherein a weight ratio  $(B + C)/(A * 100)$  is at least about 0.5, with A representing licochalcone A, B representing phenoxyethanol, and C representing glycerin.

6. The active substance combination of claim 1, wherein the weight ratio  $(B + C)/(A * 100)$  is from about 1 to about 1,000.

19. [A cosmetic or dermatological preparation which comprises an effective amount of the active substance combination of claim 1, wherein the preparation comprises from about 0.0001% to about 5% by weight of licochalcone A and from about 0.01% to about 2% by weight of phenoxyethanol], wherein the preparation comprises from about 1% to about 8% by weight of glycerin.

43. The active substance combination of claim 1, wherein a weight ratio B:A is at least 5:1.

#### *The prior art*

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

|                            |                |               |
|----------------------------|----------------|---------------|
| McCook                     | US 5,690,948   | Nov. 25, 1997 |
| Hata (machine translation) | JP 2003-238379 | Aug. 27, 2003 |

#### *The issues*

The rejections as presented by the Examiner are as follows:

A. Claims 1, 7-22, 26, 30, 32-34, 36-40, and 43-45 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement (*see* Ans. 4).

B. Claims 1, 4-40, and 43-45 stand rejected under 35 U.S.C. § 103(a), as being obvious over Hata and McCook (*see* Ans. 5).

*A. 35 U.S.C. § 112, first paragraph New Matter rejection*

The Examiner's position is that “the specification as originally filed does not provide sufficient support for the weight ratio  $(B+C)/(A*100)$  that is ‘at least about 0.5,’ as recited in claims 1 and 26” (Ans. 4). The Examiner argues that

the specification discloses a range of ratios that is bounded by particular values on the upper and lower ends of the range. In contrast, Appellants are seeking to claim all of those values that are "at least about 0.5", which range is not specifically disclosed in the specification as originally filed, and which would include values above the upper bound of about 5,000.

(Ans. 13.)

Appellants argue that the original claims 1 and 26 “did not recite any weight ratio of licochalcone A, phenoxyethanol and glycerin at all” (App. Br. 10). Appellants therefore contend that “one of ordinary skill in the art would have understood that the inventors had recognized that a combination of licochalcone A, phenoxyethanol and glycerin in any weight ratio is of value and worth [sic, worthy?] of being protected by a patent” (App. Br. 10).

Appellants argue that “one of ordinary skill in the art would recognize that original claims 4 and 28 could be split into two separate claims, one reciting the preferred lower value of about 0.5 and one reciting the preferred upper value of about 5,000” (App. Br. 11).

In view of these conflicting positions, we frame the new matter issue before us as follows:

Would an ordinary artisan have recognized the Specification as showing possession of a weight ratio  $(B + C)/(A * 100)$  that is at least about 0.5?

*Findings of Fact*

1. The Specification states that “the weight ratio  $(B + C)/(A * 100)$  may be from about 0.1 to about 5,000, e.g., from about 0.5 to about 1,000, or from about 1 to about 1,000” (Spec. 12).

2. The original claim 4 in the Specification claimed “[t]he active substance combination of claim 2, wherein a weight ratio  $(B + C)/(A * 100)$  is from about 0.5 to about 5,000” (Spec. 59).

3. The original claim 1 in the Specification had no ratio limit, stating “[a]n active substance combination comprising (a) at least one of licochalcone A and an extract of *radix glycyrrhizae inflatae* that comprises licochalcone A, (b) phenoxyethanol, and (c) optionally, glycerin” (Spec. 59).

*A. Discussion of 35 U.S.C. § 112, first paragraph New Matter rejection*

It is the Examiner's “initial burden [to] present [ ] evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976). The proscription against the introduction of new matter in a patent application (35 U.S.C. 132 and 251) serves to prevent an Applicant from adding information that goes beyond the subject matter originally filed. *In re Rasmussen*, 650 F.2d 1212, 1214 (CCPA 1981).

We agree with Appellants that the Specification provides an adequate basis for the limitation at issue. When the Specification discusses the ratios of weights of the components in the invention, the Specification indicates

that particular ratios are “advantageous” (Spec. 18). There is specific and literal support for the lower point of the range (FF 1-2).

However, because the initial claim of the Specification and the broad disclosure of the Specification teach the combination without a weight ratio (FF 3), that broad disclosure also provides support for ranges of weight ratios that go beyond those specifically disclosed as “advantageous.” The absence of an upper limit to the weight ratio in the claim was therefore described by the Specification in the original claim 1, since claim 1 lacks any upper limit. Consequently, the skilled artisan would have concluded that there is descriptive support for the recitation of a “weight ratio  $(B + C)/(A * 100)$  is at least about 0.5” in the original Specification (FF 1-3).

The written description rejection of the claims 1, 7-22, 26, 30, 32-34, 36-40, and 43-45 under 35 U.S.C. § 112, first paragraph for new matter is reversed.

*B. 35 U.S.C. § 103(a) rejection over Hata and McCook*

Appellants argue that “the range for the weight ratio  $(B + C)/(A * 100)$  that can be calculated on the basis of the combined disclosures of HATA and MCCOOK, i.e., in case glycerin is used as a humectant, is from 0.005 to 400, which range spans no less than five orders of magnitude” (App. Br. 14). Appellants contend that “HATA fails to provide any motivation for one of ordinary skill in the art to optimize the weight ratio of licochalcone A and the sterilization and antimicrobial agent (which may or may not comprise phenoxyethanol)” (App. Br. 14).

Appellants argue that

if one were to assume that in view of the disclosure of MCCOOK one of ordinary skill in the art would be

motivated to incorporate the highest amount of glycerin that is employed in any of the compositions of MCCOOK, i.e., 5 % by weight, in the exemplary composition of HATA, the weight ratio  $(B + C)/(A * 100)$  would be  $(0.05 + 5)/(0.2 * 100) = 0.25$ . Even this value is only about half of the value of this ratio that is recited in the present independent claims, i.e., about 0.5.

(App. Br. 16.) Appellants further contend that even if “one of ordinary skill in the art would be motivated to include the optional humectant of MCCOOK in the compositions of HATA, the obvious candidate therefor would not be glycerin but propylene glycol or 1,3- butylene glycol” (App. Br. 19).

The Examiner argues that “Hata et al. teaches a composition for inhibiting sebum secretion containing licochalcone A and an antimicrobial agent (see abstract, in particular), where the antimicrobial agent can be phenoxyethanol (see paragraph 0010, in particular), and even exemplifies a composition having the particular combination of licochalcone A and phenoxyethanol therein” (Ans. 16). The Examiner contends that “McCook et al. teaches that humectants such as glycerol can be suitably added to such sebum secretion inhibiting compositions” (Ans. 16). The Examiner acknowledges that the “references do not specifically teach the weight ratio as claimed” (Ans. 16), but argues that “the references teach weight percent ranges that include[ ] individual values that could be combined to provide the recited ratio” (Ans. 17).

The Examiner also argues that “absent any evidence to the contrary, it is considered that one of ordinary skill in the art would have found it obvious to vary and/or optimize the composition of Hata et al and McCook

et al, and thus to vary and/or optimize the weight ratio of the components, with the expectation of providing a suitable sebum secretion inhibiting composition” (Ans. 18).

In view of these conflicting positions, we frame the obviousness issue before us as follows:

Would one of ordinary skill in the art have been led by Hata and McCook to form a composition of licochalcone A, phenoxyethanol and glycerin with a weight ratio satisfying the requirements of claim 1?

*Findings of Fact*

4. Hata teaches that the “skin cosmetic comprises a sebum secretion inhibitor, licochalcone A and a germicidal/antimicrobial agent and has excellently [sic] preventing and treating effect on sebum secretion” (Hata translation, abstract).

5. Hata teaches that one antimicrobial agent is phenoxyethanol (Hata translation, paragraph 0010).

6. Hata discloses that suitable amounts of licochalcone A are 0.001 to 1% by weight and that suitable amounts of the antimicrobial agent are 0.0001 to 10% by weight (*see* Hata translation, paragraph 0012).

7. Hata exemplifies the use of a composition to treat sebum secretion composed of licochalcone A and phenoxyethanol (*see* Hata translation, page 3, example 1).

8. McCook teaches “[m]ethods and compositions for controlling or preventing sebum secretion” (McCook, col. 1, ll. 6-7).

9. McCook teaches humectants “may also be employed as cosmetically acceptable carriers in compositions of this invention” (McCook, col. 5, ll. 1-3).

10. McCook teaches that glycerol is a desirable humectant and that the “amount of humectant may range anywhere from 0.5 to 30%” (McCook, col. 5, ll. 6-14).

11. McCook teaches that the “humectant aids in increasing the effectiveness of the emollient, reduces scaling, stimulates removal of built-up scale and improves skin feel” (McCook, col. 5, ll. 3-5).

12. The Specification teaches that the “preparation may comprise from about 0.0001% to about 5% by weight . . . of licochalcone A” (Spec. 13, ¶ 0073), which overlaps the 0.001 to 1% range taught by Hata (*see* FF 6 above).

13. The Specification teaches that the “preparation may comprise from about 0.001% to about 5% by weight . . . of phenoxyethanol” (Spec. 13, ¶ 0074) which overlaps the 0.0001-10% weight range taught by Hata (*see* Hata ¶ 0012).

14. The Specification teaches that “the preparation may comprise from about 0.001% to about 30% by weight . . . of glycerin” (Spec. 13, ¶ 0076), which overlaps the 0.5% to 30% range taught by McCook (*see* FF 10).

*Discussion of 35 U.S.C. § 103(a) over Hata and McCook*

We conclude that the Examiner has set forth a prima facie case that claim 1 would have been obvious to the ordinary artisan in view of Hata and McCook. Hata teaches a cosmetic composition for treatment of sebum

secretion composed of lipochalcone A and phenoxyethanol (FF 4-7). McCook teaches that humectants including glycerin may be added to compositions for treatment of sebum secretion (FF 8-10). McCook provides some specific reasons why humectants would be added to the lotion of Hata, including improving skin feel and reducing scaling (FF 11).

The only element of claim 1 that is absent from Hata and McCook is the specific ratio of components. “[W]here there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness. But the presumption will be rebutted if it can be shown: (1) That the prior art taught away from the claimed invention, *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997); or (2) that there are new and unexpected results relative to the prior art, *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990).” *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1322 (Fed. Cir. 2004).

Appellants provide no evidence or argument regarding unexpected results nor do Appellants identify any teaching in the prior art which teaches away from the invention. We therefore conclude that selection of specific values for the composition components from within ranges disclosed by Hata and McCook represent predictable variations which are prima facie obvious (see FF 5, 6, 10-14 for the ranges taught by Hata and McCook). *See KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007)(“[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability.”)

Appellants argue that

if one were to assume that in view of the disclosure of MCCOOK one of ordinary skill in the art would be motivated to incorporate the highest amount of glycerin that is employed in any of the compositions of MCCOOK, i.e., 5 % by weight, in the exemplary composition of HATA, the weight ratio  $(B + C)/(A * 100)$  would be  $(0.05 + 5)/(0.2 * 100) = 0.25$ . Even this value is only about half of the value of this ratio that is recited in the present independent claims, i.e., about 0.5.

(App. Br. 16.) We do not find this argument persuasive because McCook teaches the use of much larger amounts of glycerin, up to 30% (FF 10). Therefore, selection of amounts within the range taught by McCook using the exemplary composition of Hata would result in ratios up to 1.5, which is greater than the 0.5 ratio required by claim 1 (We calculate the ratio by substituting 30% for 5% in Appellants' equation, so that the equation becomes  $(.05 + 30)/0.2 * 100$  which equals 1.5).

We reject Appellants' argument that "even if one were to assume, *arguendo*, that one of ordinary skill in the art would be motivated to include the optional humectant of MCCOOK in the compositions of HATA, the obvious candidate therefor would not be glycerin but propylene glycol or 1,3- butylene glycol" (App. Br. 19). We note that McCook exemplifies lotions with both glycerol (glycerin) and butylene glycol (McCook, col. 19, example 9). We also note that while McCook prefers propylene glycol, McCook lists and exemplifies glycerol as a humectant (McCook, col. 5, ll. 6-13; col. 19, example 9). Selection of glycerol as the humectant of McCook in the combination with Hata is merely a "predictable use of prior

art elements according to their established functions.” *KSR*, 1727 S. Ct. at 1740.

We affirm the rejection of claim 1 as obvious over Hata and McCook.

*Claim 6*

Appellants argue that the claimed weight ratio of claim 6 “is from about 1 to about 1,000. In other words, the lower value of this range, i.e., about 1, is even further remote from the value of this ratio that may be calculated on the basis of the exemplary compositions of HATA and MCCOOK” (App. Br. 21). As we discussed *supra*, selection of a value of glycerol humectant from McCook of 30% (*see* FF 10), within the range expressly disclosed by McCook, using the exemplary composition of Hata would result in a ratio of 1.5, which is within the ratio of claim 6 as calculated *supra*. “We therefore conclude that a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness.” *In re Peterson* 315 F.3d 1325, 1330 (Fed. Cir. 2003).

We affirm the rejection of claim 6 as obvious over Hata and McCook.

*Claims 16-18, 33 and 34*

Appellants argue that the use of glycerin is not rendered obvious “for at least all of the reasons set forth in Sections D.4 and D.5” (App. Br. 22). As we already noted *supra*, while McCook prefers propylene glycol, McCook lists and exemplifies glycerol as a humectant (McCook, col. 5, ll. 6-13; col. 19, example 9). Selection of glycerol as the humectant of McCook in the combination with Hata is merely a “predictable use of prior

art elements according to their established functions.” *KSR*, 1727 S. Ct. at 1740.

We affirm the rejections of claim 16 as obvious over Hata and McCook. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of 17, 18, 33 and 34 as these claims were not argued separately.

*Claims 19 and 35*

Appellants argue that “[t]he presence of substantial amounts of glycerin in the compositions of Hata” is not obvious (see App. Br. 22). Appellants identify 1% by weight as a “substantial amount of glycerin”. We find this argument unpersuasive because McCook exemplifies 3% and 5% glycerin by weight (see McCook, col. 18, Example 7, l. 46 and col. 19, Example 9, l. 32). In addition, McCook teaches that the preferred values for humectants are “between 1 and 15% by weight of the composition” (McCook, col. 5, l. 14). We therefore conclude that the use of about 1% glycerin as required by claim 19 would have been within the preferred range of McCook and would have been obvious. *See In re Peterson*, 315 F.3d at 1330 (“We therefore conclude that a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness.”)

We affirm the rejections of claim 19 as obvious over Hata and McCook; claim 35 falls with claim 19.

*Claims 43-45*

Appellants argue that Hata does not teach a 5:1 weight ratio of phenoxyethanol to lichochalcone and “HATA does not provide any

motivation to optimize this weight ratio, let alone for the purpose recited in the present application” (App. Br. 23).

We are not persuaded by this argument since “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability.” *KSR*, 127 S. Ct. at 1740. Selection of specific ratios for the licochalcone A and phenoxyethanol from the larger ranges disclosed by Hata is not unobvious in the absence of evidence of unexpected results or some other secondary consideration (see FF 10, 12-14). *See In re Peterson*, 315 F.3d at 1330 (“We therefore conclude that a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness.”)

We affirm the rejection of claims 43-45 as obvious over Hata and McCook.

#### CONCLUSION

In summary, we reverse the rejection of claims 1, 7-22, 26, 30, 32-34, 36-40, and 43-45 12 under 35 U.S.C. § 112, first paragraph, written description. We affirm the rejection of claims 1, 6, 16-19, 33-35 and 43-45 under 35 U.S.C. § 103(a) as obvious over Hata and McCook. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 4, 5, 7-15, 20-32, and 34-40 as these claims were not argued separately.

Appeal 2008-1011  
Application 11/001,224

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)(iv)(2006).

AFFIRMED

Ssc:

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