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Abel Law Group, LLP
8911 N. Capital of Texas Hwy
Bldg 4, Suite 4200
Austin, TX 78759

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LUDGER KOLBE, JULIA ECKERT, GITTA NEUFANG,
STEFANIE KNAUPMEIER, and NILS PETERS¹

Appeal 2014-003970
Application 12/933,231
Technology Center 1600

Before JEFFREY N. FREDMAN, RICHARD J. SMITH, and
JOHN E. SCHNEIDER, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a method of reducing itching, reducing paraesthesias with dry or aged skin, and reducing dermatological paraesthesias caused by sunburn. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ According to Appellants, the real party in interest is Beiersdorf AG. (Appeal Br. 3.)

STATEMENT OF THE CASE

Claims on Appeal

Claims 10–29 are on appeal. (Claims Appendix, Appeal Br. 25–28.)

Claim 10 is illustrative and reads as follows:

10. A method of at least one of reducing itching, reducing paraesthesias with dry skin or aged skin, and reducing dermatological paraesthesias caused by sunburn, wherein the method comprises applying to skin of a subject in need thereof a cosmetic or dermatological preparation that comprises at least one of (1R,2S,5R)-2-isopropyl-5-methyl-N-(2-(pyridin-2-yl)ethyl)cyclohexane-carboxamide and (1R,2S,5R)-N-(4-(cyanomethyl)-phenyl)-2-isopropyl-5-methylcyclohexanecarboxamide in an amount that is effective for at least one of reducing itching, reducing paraesthesias with dry skin and aged skin, and reducing dermatological paraesthesias caused by sunburn.

Examiner's Rejections²

1. Claims 10–13, 15–17, 24, and 29 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wei³ and Rovner.⁴ (Ans. 2.)

Claims 10–13, 15–17, 24, and 29 were not argued separately, and we therefore limit our consideration of those claims to claim 10.

2. Claim 14 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Wei, Rovner, and Galopin.⁵ (*Id.*)

3. Claims 21–23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wei, Rovner, and Ramirez.⁶ (*Id.*)

² The rejection under 35 U.S.C. § 102(b) was withdrawn. (Ans. 3.)

³ Wei, US 2005/0187211 A1, published Aug. 25, 2005 (“Wei”).

⁴ Rovner, *Better Than Mint*, Chem. Eng. News, 85 (39), 1–4 (print version; cited page numbers begin with the title page) (2007) (“Rovner”).

⁵ Galopin et al., US 2006/0276667 A1, published Dec. 7, 2006 (“Galopin”).

⁶ Ramirez et al., US 2007/0190190 A1, published Aug. 16, 2007 (“Ramirez”).

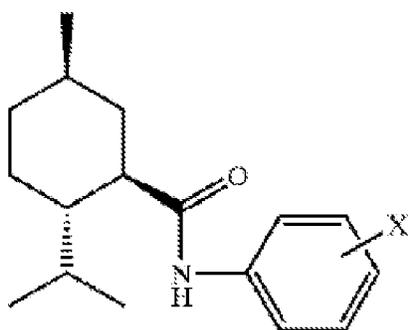
4. Claims 18–20 and 25–28 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wei, Rovner, Galopin, and Ramirez. (*Id.*)

FINDINGS OF FACT

We adopt as our own the Examiner’s findings and analysis concerning the scope and content of the prior art. The following findings are included for emphasis and reference convenience.

FF 1. Wei teaches “compounds . . . that have cooling and cold effects that are useful to counteract sensory irritation, itch and pain.” (Wei ¶ 8.)

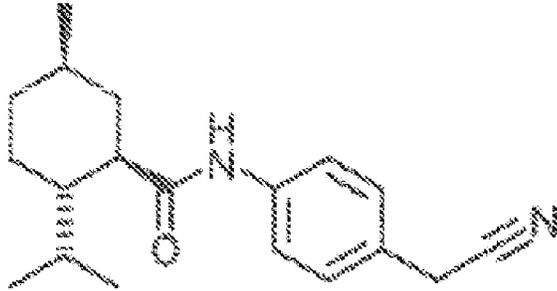
FF 2. The Examiner finds that Wei teaches a method of reducing itching, reducing paraesthesias with dry skin or aged skin (pruritus caused by xerosis in the elderly), and reducing dermatological paraesthesias caused by sunburn, comprising applying to the skin an N-aryls₃alkyl-cCarboxamide (illustrated below and referred to herein as the “General Formula”). Table 1 of Wei identifies several substituents for X. (Ans. 3–4, citing Wei ¶¶ 3, 38, 45–47, and Table 1.)



FF 3. Wei teaches that the disclosed N-aryls₃alkyl-cCarboxamide compounds act on ion channel receptors, belonging to the TRP (transient receptor potential) family of proteins, to stimulate ion channels of peripheral sensory neurons, including TRP-M8, which (when activated) relay signals to

the spinal cord and brain that generate sensations of coolness and refreshment. (Wei ¶ 24.)

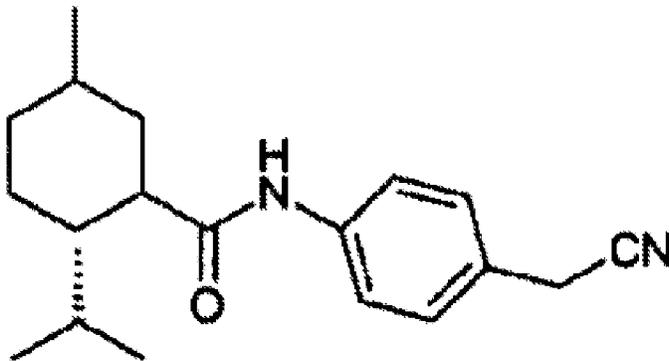
FF 4. Rover teaches the development of cooling compounds, including the following illustrated compound referred to as EVERCOOL 180:



(Rovner 1–2.)

FF 5. The Examiner finds that “EVERCOOL 180 was developed using a TRP-M8 bioassay evaluating cooling activity *in vitro* and expert panels to evaluate the duration and intensity of the cooling sensation.” (Ans. 5, citing Rovner 3.)

FF 6. The Specification identifies (1R,2S,5R)-N-(4-(cyanomethyl)-phenyl)-2-isopropyl-5-methylcyclohexanecarboxamide as having the following structure:



(Spec. 3, ll. 3–5.) Appellants do not dispute that EVERCOOL 180 is the same as the claimed (1R,2S,5R)-N-(4-(cyanomethyl)-phenyl)-2-isopropyl-5-methylcyclohexanecarboxamide.

ISSUE

Whether a preponderance of evidence of record supports the Examiner’s conclusion of obviousness under 35 U.S.C. § 103(a).

ANALYSIS

We adopt the Examiner’s findings and analysis, and agree with the Examiner’s conclusion that claims 10–29 would have been obvious to a person of ordinary skill in the art at the time of the invention. (Ans. 2–10; Final Act.⁷ 9–22.) We address Appellants’ arguments below.

Rejection No. 1

Disclosure of Wei

Appellants argue that “[t]he compounds of the invention of WEI are structurally different from the compounds recited in the instant claims.” (Appeal Br. 16–18.) In particular, Appellants argue that “it is apparent that these compounds [of the General Formula] are not compounds according to the invention of WEI but are clearly shown for comparative purposes only.” (*Id.* at 17.) In support of that argument, Appellants argue that the compounds of the General Formula “do not contain a (substituted) arylalkyl group, but contain merely an aryl group” and are not encompassed by claimed Formula 1 of Wei. (*Id.* at 16.) Appellants argue further that Table 1 of Wei includes a heading entitled “This invention:” that identifies the compound CPS-116, that CPS-116 is different from compounds of the

⁷ Office Action dated Jan. 29, 2013.

General Formula, and “that [CPS-116] is employed in all of the Examples of WEI.” (*Id.* at 17.) In view of the forgoing, Appellants contend that Wei does not provide “any apparent reason to modify a (comparative) compound of the [General Formula] . . . instead of modifying a compound of Formula 1 as shown in claim 1 of WEI, i.e., a compound that WEI identifies as belonging to the invention disclosed therein.” (*Id.* at 18.)

We are not persuaded. A prior art reference may be read for all that it teaches, including uses beyond its primary purpose. *In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012). Here, as explained by the Examiner, “Wei expressly teaches applying cooling compounds within the structure shown in Table 1 to the skin.” (Ans. 6; *see also* FF 1.) Moreover, one cannot show nonobviousness by attacking references individually where the Examiner bases the rejection on a combination of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). Here, the obviousness rejection is based on the combination of Wei and Rovner, and Rovner teaches the claimed compound (FF 4, 6) that also provides a cooling sensation like the compounds disclosed in Wei (FF 1). The use of EVERCOOL 180, as taught by Rovner, thus constitutes the mere substitution of one “cooling” compound for another “cooling” compound known in the field, yielding predictable results. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). *Cf. Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012) (“This case presents a strong case of obviousness . . . [because the claim] recites a combination of elements that were all known in the prior art, and all that was required to obtain that combination was to substitute one well-known cooling agent for another.”)

Use of EVERCOOL 180

Appellants argue that Wei teaches away from using a cyanomethyl substituent or, as supplemented in the Reply Brief, the question is “not whether WEI teaches away from using Evercool 180” but “whether WEI would have rendered it obvious to one of ordinary skill in the art to use a compound like Evercool 180.” (Appeal Br. 18–19; Reply Br. 5.) In particular, Appellants argue that Wei teaches that “the substituent X of the aryl group preferably is an electron donating group” whereas “a cyanomethyl group is an electron withdrawing group,” and “the cyano group in Evercool 180 of ROVNER indisputably is . . . an electron withdrawing substituent.” (Appeal Br. 18–19; Reply Br. 4.)

We are not persuaded. As explained by the Examiner, “EVERCOOL 180 activates the TRP-[M8] channel and provides a long lasting and potent cooling effect,” having the bioactivity that Wei teaches is desirable. (Ans. 9, citing Rovner 3–4.) Moreover, as further explained by the Examiner, while “Wei suggests that electron donators and not electron withdrawing groups were desirable substituents for prolonging the duration of coolness, work in the field continued after [Wei]” and “EVERCOOL 180 was subsequently identified as a potent and long-acting cooling agent as a result of TRP-M8 channel activation and panelist evaluation.” (Ans. 9–10, citing Rovner 2–4.)

Reason to Combine Wei and Rovner

Appellants argue that there is no apparent reason to combine Wei and Rovner because “ROVNER is not at all concerned with compounds or compositions for application to skin, let alone with topical compositions for the alleviation of skin irritation, itch and pain.” (Appeal Br. 20.) Rather,

according to Appellants, “the compounds discussed [in Rovner] are intended for flavoring purposes.” (*Id.*)

We are not persuaded. The Examiner points to Rovner’s recognition of the use of cooling agents in shaving cream, research undertaken by the “skin care company” Wilkinson Sword, and receptors in the skin. (Ans. 8, citing Rovner 1–2.) The Examiner also found that a person of ordinary skill in the art at the time of the invention “knew of the interaction of taste, smell, and sensations caused by stimulation of receptors in the skin.” (*Id.*, citing Rovner 2.) The Examiner also points to several areas of overlap in the teachings of Wei and Rovner, further supporting a basis for their combination. (*Id.* at 8–9.)

We find no error in the Examiner’s reliance on, and combination of, Wei and Rovner. We affirm the rejection of claim 10 and, because they were not separately argued, claims 11–13, 15–17, 24, and 29 fall with claim 10.⁸

Rejection Nos. 2–4

Appellants argue that the claims subject to rejections 2–4 are dependent claims, are nonobvious for at least the reasons set forth in connection with Rejection No. 1, and that the additional cited references are unable to cure the deficiencies of Wei and Rovner. (Appeal Br. 21–23.) Accordingly, for the reasons set forth above in connection with Rejection No. 1, and because we discern no error in the Examiner’s reliance on Wei

⁸ We acknowledge, but are unpersuaded by, Appellants’ arguments regarding the duration of cooling action. (Reply Br. 2–5.) These arguments are inapt because the claims do not recite a cooling duration. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

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and Rovner, we affirm the rejection of claims 14, 18–20, 21–23, and 25–28 (Rejection Nos. 2–4).

CONCLUSION OF LAW

A preponderance of evidence of record supports the Examiner’s conclusion that claims 10–29 are obvious under 35 U.S.C. § 103(a).

SUMMARY

We affirm the rejections of all claims on appeal.

TIME PERIOD FOR RESPONSE

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

AFFIRMED