

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AXEL BOETTCHER, HERMANN HENSEN,
AND WERNER SEIPEL

Appeal No. 2002-0089
Application 09/331,647¹

ON BRIEF

Before: SCHAFER, TORCZON and TIERNEY, Administrative Patent Judges.

TIERNEY, Administrative Patent Judge.

Decision on Appeal

This is an appeal under 35 U.S.C. §134 from the examiner's refusal to allow claims 8-20. We affirm the rejection of claims 8-20 under 35 U.S.C. § 103(a) over Schambil, CA 1,334,458. We reverse all other examiner rejections that were made in the Examiner's Answer (Paper No. 13).

¹Application for patent filed on June 23, 1999. This application is said to claim benefit of PCT Application PCT/EP98/00279, filed January 20, 1998 which itself claims benefit of German Application DE 197 03 087.4, filed January 29, 1997. The real party in interest is Cognis Deutschland GmbH.

1. The Invention

The invention relates to cosmetic phase-inversion temperature (PIT) emulsions. The cosmetic contains wax esters, triglycerides and nonionic surfactants. The cosmetic can be used as a “refatting” agent to counteract the removal of lipids that occurs during personal cleansing. (Specification, p. 1, lines 1-11 and p. 1, line 26 to p. 2, line 6).

A copy of the claims under appeal is set forth in the appendix to the Appellant’s Brief. Appellants do not argue the claims separately and thus, for purposes of this decision, stand or fall together. 37 CFR § 1.192(c)(7). Independent claims 8 and 15 are illustrative of the invention and reads as follows:

8. An aqueous cosmetic phase-inversion temperature emulsion comprising:

- (a) from 30 to 40% by weight, based on the weight of the emulsion, of a wax ester;
- (b) a triglyceride;
- (c) a partial glyceride; and
- (d) a fatty alcohol polyglycol ether.

15. A process for enhancing refatting properties of a personal cleansing composition comprising adding an effective amount of an aqueous phase-inversion temperature emulsion to the personal cleaning composition, the emulsion containing:

- (a) from 30 to 40% by weight, based on the weight of the emulsion, of a wax ester;
- (b) a triglyceride;
- (c) a partial glyceride; and
- (d) a fatty alcohol polyglycol ether.

2. The References

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Schambil, et al. (Schambil)	CA 1,334,458	February 14, 1995
Wahle et al. (Wahle)	U.S. 5,723,137	March 3, 1998

Schambil is available as prior art under 35 U.S.C. § 102(b). Wahle has a 35 U.S.C. § 102(e) filing date of April 29, 1996 and is available as prior art under 35 U.S.C. § 102(e).

a. The Schambil Reference

Schambil describes a process for the production of oil-in-water emulsions of polar oil components. (Schambil, p. 1, lines 3-7). More specifically, Schambil's emulsions are phase-inversion temperature (PIT) emulsions that contain a polar oil having one or more ester functional groups in the molecule. (Schambil, p. 1, lines 3-7 and p. 2, lines 13-18). The compositions are said to be useful as skin-care and body-care preparations. (Schambil, p. 8, lines 8-14).

Schambil's emulsions are said to comprise an oil component (A), a primary emulsifier (B) and water. Preferably the compositions also contain a co-emulsifier component (C). Generally, the oil component (A) and an equal mass of water or more are made into the emulsion with a preferred ratio of (A):(B):(C) of 1: 0.1-0.3: 0.1-0.3. (Page 2, lines 35-37 and page 7, lines 6-9).

The oil component (A) consists of:

(A1) 50 to 100% by weight of mono- or diester molecules that contains at least

10 carbon atoms. The ester corresponds to one of four formulas, the first of which being R^1COOR^2 where R^1 and R^2 can be a C_{1-22} alkyl group.

(Schambil, p. 2, lines 23-29)

(A2) 0 to 50% by weight of an aliphatic acid triglyceride of C_{8-22} aliphatic acids.

(Schambil, p. 2, lines 31-33).

(A3) 0 to 25% by weight of hydrocarbon molecules. (Schambil, p. 2, line 34).

The emulsifier (B) is present in an amount of 0.1 to 0.5 parts by weight of the oil component (A) and is selected from (B1) adducts of ethylene oxide with C_{16-22} aliphatic alcohols and (B2) adducts of ethylene oxide with partial esters of C_{3-6} polyols with C_{14-22} aliphatic acids. (Schambil, p. 2, lines 2-10). The coemulsifier (c) is selected from (C1) saturated C_{16-22} aliphatic alcohols and (C2) partial esters of C_{3-6} polyols with saturated C_{14-22} aliphatic acids. (Schambil, p. 3, lines 11-17).

Of note, Schambil claim 9 reads as follows:

9. A process according to claim 3, wherein component (A) consists essentially of molecules selected from classes (A1) and (A2) only and component (B) consists essentially of molecules that are adducts of 8 to 12 molecules of ethylene oxide with one saturated C_{20-22} aliphatic alcohol molecule.

(Schambil, p. 15, claim 9).

b. The Wahle Reference

Wahle teaches a process for producing a storage-stable, fine-particle wax dispersion. (Wahle, abstract). The dispersion are particularly suitable for use in the cosmetics field, for

example, as skin-care and body-care formulations. (Wahle, col. 6, lines 27-32).

Wahle's dispersion is formed with: (A) 10 to 80% of a wax; (B) 0.5 to 30% by weight of a nonionic dispersant; and (c) 1 to 30% by weight of a hydrophobic co-dispersant selected from the group of fatty alcohols or partial esters of polyols containing 3 to 6 carbon atoms with fatty acids. (Wahle, col. 2, lines 8-17). Oils may be present in addition to the waxes (A), such those conforming to the formula R^1-COOR^2 wherein R^1 and R^2 denote alkyl groups. (Wahle, col. 2, line 64 to col. 14). Other suitable oils include fatty acid triglycerides. (Wahle, col. 2, lines 43-58). A preferred nonionic dispersant (B) is a fatty alcohol polyglycol ether. (Wahle, col. 2, lines 30-39). Additionally, another dispersant (B) that may be included is a fatty acid partial glyceride. (Wahle, col. 4, lines 40-60).

3. The Rejections

- (1) Claims 15-20 stand rejected under 35 U.S.C. § 112, first paragraph as lacking enablement.
- (2) Claim 15 stands rejected under 35 U.S.C. § 112, second paragraph as indefinite.
- (3) Claims 8-12 and 14-19 stand rejected under 35 U.S.C. § 102(b) as anticipated by Schambil.
- (4) Claims 8-12 and 14-19 stand rejected under 35 U.S.C. § 102(e) as anticipated by Wahle.

(5) Claims 8-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Schambil.

a. The Rejections under 35 U.S.C. § 112

1. Indefiniteness

Claim 15 stands rejected under 35 U.S.C. § 112, second paragraph as indefinite.

According to the examiner, neither the claims nor the specification provides sufficient guidance as to the “enhanced” refatting properties. (Examiner’s Answer, p. 4). The proper standard for definiteness under 35 U.S.C. § 112, second paragraph, is whether a claim reasonably apprises those of skill in the art of its scope. See *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994); *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217, 18 USPQ2d 1016, 1030 (Fed. Cir. 1991). As used in claim 15, the term “enhanced” implies that the claimed process will result in higher or better refatting properties as compared to a cleaning composition without the presence or the aqueous phase-version emulsion amount of fats or oils on the skin after treatment. The examiner has failed to sufficiently explain why this ordinary definition would not be appropriate in this instance.

2. Lack of Enablement

Claims 15-20 stand rejected under 35 U.S.C. § 112, first paragraph as lacking enablement. Claims 15-20 are said to be directed to enhancing the refatting properties of a

Appeal No. 2002-0089
Application No. 09/331,647

personal cleansing composition by adding an effective amount of an aqueous phase-inversion temperature emulsion. According to the examiner, the specification does not describe what refatting properties are and how the emulsion enhances these properties. (Office Action, Paper No. 5). As noted in appellants' Reply Brief, the use of a personal cleansing composition can cause naturally present fats to be removed from skin. Appellants' explain that the term "refatting" is used in the art to refer to the replacement of at least some of these naturally occurring fats. (Reply Brief, Paper No. 14, p. 2). This definition of "refatting" is consistent with appellants' use of that term in their specification. (See, e.g., p. 1, lines 7-25).

To comply with the enablement requirements of 35 USC §112, first paragraph, a specification must adequately teach how to make and how to use a claimed invention throughout its scope, without undue experimentation. See *Enzo Biochem, Inc. v. Calgene, Inc.*, 188 F.3d 1362, 1371, 52 USPQ2d 1129, 1135 (Fed. Cir. 1999); *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) ("Although not explicitly stated in section 112, to be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.'"). Thus, the scope of enablement is that which is disclosed in the specification plus the scope of what would be known to one of ordinary skill in the art without undue experimentation. *National Recovery Technologies, Inc. v. Magnetic Separation Systems, Inc.*, 166 F.3d 1190, 1196, 49 USPQ2d 1671, 1676 (Fed. Cir. 1999).

The examiner has failed to demonstrate that one skilled in the art would not be able to

determine the appropriate amount of phase-inversion emulsion to be added to the personal cosmetic composition such that the refatting properties of the cosmetic are enhanced.

Specifically, the examiner has failed to sufficiently demonstrate that one skilled in the art would not be able to determine the amount of emulsion necessary to bring about an enhancement of the refatting properties of the cosmetic.

b. The Rejections under U.S.C. § 102

1. The Rejection over Schambil

Claims 8-12 and 14-19 stand rejected under 35 U.S.C. § 102(b) as anticipated by Schambil. According to the examiner, Schambil teaches a process for producing an oil-in-water emulsion having 12.5 to 50 wt% of a wax ester, a triglyceride, mono- or diesters and water. (Examiner's Answer, p. 4). Schambil is said to teach the use of the emulsion in cosmetic compositions.

Appellants argue that Schambil fails to anticipate the claimed invention as Schambil fails to teach all of the claimed limitations. Specifically, appellants argue that Schambil teaches that the use of the triglyceride is optional and that Schambil does not disclose the claimed 30 to 40% by weight wax ester. (Reply Brief, Paper No. 14, p. 4).

While anticipation requires that each limitation of a claim be found in a single reference, "the disclosure of a small genus may anticipate the species of that genus even if the species are not themselves recited." *Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc.*, 246 F.3d

1368, 1380, 58 USPQ2d 1508,1516-1517 (Fed. Cir. 2001); *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962). Schambil teaches an emulsion having an oil component that consists essentially of molecules selected from 50 to 100% by weight of wax esters (A1) and 0 to 50% by weight of a triglyceride (A2). (Schambil, p. 12, claim 1, p. 14, claim 3 and p. 15, claim 9). Thus, Schambil teaches that the oil component may: 1) contain a wax ester and a triglyceride; or 2) contain a wax ester and no triglyceride. Schambil teaches such a small genus of species for the oil component (A) that one skilled in the art would recognize that Schambil possessed both the oil component having a triglyceride and an oil component having no triglyceride. Thus, we hold that Schambil teaches the presence of the triglyceride for purposes of anticipation.

The appellant has stated that Schambil teaches, at best, 25 to 50% by weight of a wax ester. (Brief, pages 3-4). The examiner, however, argues that Schambil teaches a final emulsion having 12.5 to 50% wax ester. Schambil teaches that:

[A]n amount of water having a mass at least equal to the mass of the oil component (A) are made into an emulsion with the aid of: 0.1 to 0.5 part by weight - per part by weight of the oil component - of a primary emulsifier component (B). . .”

(Schambil, p. 2, line 35 to p. 3, line 3). Thus, Schambil requires that one skilled in the art select the appropriate proportions of the oil, water and emulsifier. A broadly described range of proportions does not always anticipate a narrowly claimed range of proportions. The claimed subject matter must be described with “sufficient specificity.” The examiner bears the burden of proof. In this case, the examiner’s burden requires a full explanation for finding that Schambil provides sufficient specificity for an emulsion having 30 to 40% wax ester. The methodology for

calculating the amount of wax ester is a necessary part of that explanation. Accordingly, we reverse the examiner's rejection of claims 8-12 and 14-19 as anticipated by Schambil.

2. The Rejection over Wahle

Claims 8-12 and 14-19 stand rejected under 35 U.S.C. § 102(e) as anticipated by Wahle. The examiner cites Wahle for its teaching that all of the claimed components can be combined to form a wax dispersion. In particular, the examiner cites Wahle for its description of a dispersion that may contain 10-80% wax, triglycerides, a fatty alcohol polyglycol ether and 1-30 wt% of partial esters of polyols with fatty acids. (Examiner's Answer, pages 5-6).

Appellants' argue that Wahle fails to disclose each and every element of the claimed invention. Appellants state that Wahle fails to disclose an emulsion containing both a triglyceride and a wax ester. According to appellants, the fact that Wahle discloses that one or more oils may be used does not mean that the *claimed* oils must be used as opposed to a combination of any of other oils mentioned in Wahle.

Wahle describes several different types of oils that may be used in combination with a wax ester. An anticipatory reference must clearly and unequivocally disclose the claimed invention or direct those skilled in the art to the claimed invention without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the reference. *In re Arkley*, 455 F.2d 586, 587, 172 USPQ 524, 526 (C.C.P.A. 1972). Wahle generally teaches that wax esters may be used in combination with a triglyceride. Wahle,

however, does not expressly disclose the *specific* combination of appellants' claimed invention of a wax ester in combination with a triglyceride, a partial triglyceride and a fatty alcohol polyglycol ether. Given the picking and choosing among the various waxes and oils, Wahle does not "clearly and unequivocally" direct those skilled in the art to appellants' claimed invention. Accordingly, we reverse the examiner's rejection of claims 8-12 and 14-19 as anticipated by Wahle.²

c. The Rejection under U.S.C. § 103(a)

Claims 8-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Schambil. According to the examiner, Schambil teaches all the limitations contained in appellants' claims with the possible exception of adding the emulsion to a cosmetic composition. The examiner holds that it would have been obvious to one skilled in the art to add the emulsion of Schambil to a cosmetic composition to produce a cosmetic composition with increased stability and low viscosity. (Examiner's Answer, p. 7).

Appellants state that Schambil teaches 25 to 50% wax ester when using the minimum amount of water disclosed in the Schambil reference. Yet, appellants argue that Schambil does not render the claimed invention obvious as Schambil fails to teach or suggest using the claimed wax ester in an amount of 30 to 40% by weight of the emulsion. (Brief, pages 7-8 and Reply

²It may well be that the claims are unpatentable under 35 U.S.C. §103(a) over Wahle. Such a rejection, however, is not before us. Upon consideration of this decision, the examiner is free to make such a rejection if it is deemed appropriate.

Appeal No. 2002-0089
Application No. 09/331,647

Brief, pages 3-4).

Schambil describes a percentage range of wax ester that can be used in the emulsion and describes the use of such emulsions for skin-care and body-care formulations. Both the examiner and appellants' appear to agree that Schambil generally teaches a wax ester range that overlaps the claimed range of 30 to 40% wax ester. In view of Schambil's teaching of the use of a range, it would have been obvious for one skilled in the art to vary the proportions of wax ester in Schambil to arrive at the best emulsions for skin-care and body-care formulations. Indeed, "it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Only if the "results of optimizing a variable" are "unexpectedly good" can a patent be obtained for the claimed critical range. *In re Antonie*, 559 F.2d 618, 620, 195 USPQ 6, 8 (CCPA 1977); see also *In re Dillon*, 919 F.2d 688, 692, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990) (*in banc*). As appellants have failed to identify persuasive factual evidence of unexpected results for the claimed amounts of wax ester, we hold that appellants' claims are unpatentable under 35 U.S.C. § 103(a) over Schambil.

Conclusion

The decision of the examiner to reject claims 8-20 under 35 U.S.C. § 103(a) over CA 1,334,458 is Affirmed. All other rejections contained in the examiner's answer are Reversed.

Appeal No. 2002-0089
Application No. 09/331,647

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

AFFIRMED

RICHARD E. SCHAFER)
Administrative Patent Judge)
)
)
) BOARD OF PATENT
RICHARD TORCZON)
Administrative Patent Judge) APPEALS AND
)
) INTERFERENCES
)
MICHAEL P. TIERNEY)
Administrative Patent Judge)

Appeal No. 2002-0089
Application No. 09/331,647

MPT/yr

cc: COGNIS CORPORATION
2500 Renaissance Blvd.
Suite 200
Gulph Mills, PA 19406