

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAY MIYAKAWA LIU and CRAIG MILLER

Appeal 2007-3390
Application 10/143,915
Technology Center 1600

Decided: July 31, 2007

Before DONALD E. ADAMS, TONI R. SCHEINER, and
NANCY J. LINCK, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 4-7 and 9. The only claims, claims 1-3, were withdrawn from consideration as based on non-elected subjected (Br. 2). We have jurisdiction under 35 U.S.C. § 6(b).

INTRODUCTION

The claims are directed to a process or method for revitalizing human skin. Claims 4 and 9 are illustrative:

4. A revitalizing human skin process comprising the steps of destabilizing the lipid bylayers [sic] of the skin using an ultrasonic device;
inserting liquid vitamin C into the epidermis layers of the skin; and providing vitamin C to the Keratinocyte cells located in the epidermis layers of the skin enabling the vitamin C to expel Melanin from the Keratinocyte cells.

9. A revitalizing human skin process comprising the steps of destabilizing the lipid bylayers [sic] of the skin using an ultrasonic device;
inserting liquid vitamin C into the epidermis layers of the skin;
providing vitamin C to the Keratinocyte cells located in the epidermis layers of the skin; [and]
enabling the Keratinocyte cells to expel toxins and repair cells.

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

Kim WO 01/80945 A1 Nov. 1, 2001
Spencer “Iontophoresis and Sonophoresis,”, J Soc Cosmet Chem, Vol. 40(6), pp. 377-379 (1989)

The rejections as presented by the Examiner are as follows:

1. Claim 9 stands rejected under the written description provision of 35 U.S.C. § 112, first paragraph.
2. Claims 4-7 and 9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kim and Spencer.

We affirm.

DISCUSSION

Written Description:

Claim 9 stands rejected under the written description provision of 35 U.S.C. § 112, first paragraph. The Examiner finds that “[c]laim 9 recites ‘enabling vitamin C to expel toxins and repair cells’,” which is unsupported by Appellants’ originally filed Specification. According to the Examiner,

[e]ven though the application states: “vitamin C may be especially important in this day and age of widespread environmental pollution because it combats the effects of many such toxins” (page 5 of the application), the application never provide[s] support that vitamin C “enabling the keratinocyte cells to expel toxins and repair cells.”

(Answer 3.)

In response, Appellants direct attention to page 5 of their Specification, which teaches that vitamin C functions to export procollagen molecules like Melanin out of cells which results in the restoration of the skin’s pigmentation (Br. 4-5; Specification 5: 1-9). We note, however, that Appellants’ Specification defines toxins as “including ozone, carbon monoxide, hydrocarbons, pesticides and heavy metals . . .” (Specification 5:

17-18). Melanin is not included in this listing of toxins, nor does the Specification identify melanin as a toxin. Further, Appellants' Specification states that “[v]itamin C may be especially important in this day and age of widespread environmental pollution because it combats the effects of many such toxins” (Specification 5: 15-17). We find, however, no nexus in Appellants' Specification between combating the effects of a toxin and specifically enabling a keratinocyte to expel toxins as required by claim 9. While combating the effect of a toxin may lead to restoration of the skin, there is no disclosure in Appellants' Specification that this is due to the function of vitamin C to enable a keratinocyte to expel toxins (Br. 5). Accordingly, we are not persuaded by Appellants' arguments.

Therefore, we affirm the rejection of claim 9 under the written description provision of 35 U.S.C. § 112, first paragraph.

Obviousness:

Claims 4-7 and 9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kim and Spencer. Since Appellants do not separately argue the claims they stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Therefore, we limit our discussion to representative claim 4. Claim 4 is drawn to a process for revitalizing human skin. The claimed process comprises three steps:

1. destabilizing the lipid bylayers [sic] of the skin using an ultrasonic device;
2. inserting liquid vitamin C into the epidermis layers of the skin; and

3. providing vitamin C to the Keratinocyte cells located in the epidermis layers of the skin enabling the vitamin C to expel Melanin from the Keratinocyte cells.

The Examiner relies on Kim to teach a method for the transdermal administration of vitamin C (ascorbic acid) wherein vitamin C is penetrated into the skin using iontophoresis and ultrasonic waves (Answer 4; Kim Abstract).

In addition, we find that Kim teaches an ultrasonic device. Specifically, Kim teaches a skin-care apparatus that comprises, *inter alia*, a resonance part that produces ultrasonic waves and an iontophoresis-vibration part, “which enables iontophoresis and ultrasonic massage to be conducted by way of a contact plate that is in contact with skin” (Kim 4: 17 - 5: 6). According to Kim the method for transdermal administration of ascorbic acid is preferably conducted by iontophoresis, while applying ultrasonic vibrations to the skin (Kim 9: 17-22). Stated differently, Kim’s method for transdermal administration of ascorbic acid is performed with an ultrasonic device.

We recognize the Examiner’s statement that Kim “does not teach expressly using ultrasonic [waves] as the means for enhancing penetration” (Answer 4). This is, however, not required by claim 4. Claim 4 simply requires the use of an “ultrasonic device”. As discussed above, Kim discloses an ultrasonic device. Nevertheless, the Examiner relies on Spencer to teach that iontophoresis (which utilizes electrical potential energy) and sonophoresis (which utilizes ultrasonic waves) are both known in the art to be useful for enhancing the skin’s absorption of topical actives (Answer 4).

As discussed above, the device used in Kim’s method for transdermal administration of vitamin C utilizes both electrical potential energy (iontophoresis) and ultrasonic waves (sonophoresis). Claim 4 does not exclude this combination. Accordingly, we are not persuaded by Appellants’ assertion that Kim “only teaches applying a vitamin C composition to the skin, and enhancing its penetration with iontophoresis” (Br. 6).

While Appellants recognize that “the Examiner is correct that Spencer teaches that sonophoresis is known to be similarly useful as iontophoresis, Appellant[s] respectfully disagree[] that there is any suggestion in Spencer, Kim et al., or any other prior art of record for substituting the sonophoresis teaching of Spencer into the iontophoresis teachings of Kim et al.” (Br. 6.) We find, however, that a substitution of sonophoresis for iontophoresis is not required in this instance. On this record, the Examiner has established that iontophoresis and sonophoresis are both known to enhance the skin’s absorption of topical actives (Answer 4). Appellants agree with this finding (Br. 6). In this regard, the Examiner relies on Kim, which teaches a method for transdermal administration of vitamin C that utilizes both iontophoresis and sonophoresis. Accordingly, no modification of Kim’s method or device is necessary. *See KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1397 (2007) (“In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.”) Therefore, we are not persuaded by Appellants’ argument to the contrary.

We recognize the Lui Declaration. Lui describes both sonophoresis and iontophoresis and declares that both processes were known in the art prior to the filing date of the present application (Lui Declaration ¶¶ 3-5). Lui also declares that there are a number of undesirable side effects in performing iontophoresis, which are not found in the use of sonophoresis (Lui Declaration ¶ 6). While this may be true, there is nothing in Appellants' claim 4 to exclude the performance of both iontophoresis and sonophoresis, as taught by Kim, in Appellants' claimed method. Accordingly, we are not persuaded by the Lui Declaration, or Appellants' arguments based on the Lui Declaration (*see Br.* 6-7).

On reflection, Appellants have not identified, and we do not find, an error in the Examiner's *prima facie* case of obviousness. Accordingly, we affirm the rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over the combination of Kim and Spencer. Claims 5-7 and 9 fall together with claim 4.

CONCLUSION

In summary, we affirm all rejections of record.

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).

AFFIRMED

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