

UNITED STATES PATENT AND TRADEMARK OFFICE

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

Ex parte RUSSELL LEE KELLEY, ALLAN JOHN LEPINE, and
BRUCE A. WATKINS

Appeal 2008-5508
Application 10/855,080
Technology Center 1600

Decided: December 9, 2008

Before DEMETRA J. MILLS, LORA M. GREEN, and
FRANCISCO C. PRATS, *Administrative Patent Judges*.

GREEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-3 and 5-19. We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a pet food composition. Claim 1 is representative of the claims on appeal, and read as follows:

1. A composition comprising from at least 0.001% stearidonic acid, by weight of the composition; wherein the composition is a pet food composition.

The Examiner relies on the following references:

Ursin et al. US 2004/0039058 A1 Feb. 26, 2004

Karen Railey, The Amazing Hemp Plant (*Cannabis sativa L.*) (2002),
<http://web.archive.org/web/20020205214254/http://chetday.com/hemp.html>.

We affirm.

ISSUE

The Examiner concludes that claims 1-3 and 5-19 are rendered obvious by the combination of Ursin and Railey.

Appellants contend that the combination of references do not provide any motivation to optimize the amount of SDA to arrive at the amount required by claim 1.

Thus, the issue on Appeal is: whether Appellants have demonstrated that the Examiner erred in concluding that the references relied upon provide motivation to optimize the amount SDA to arrive at the amount required by claim 1?

FINDINGS OF FACT

FF1 “The present inventive compositions are pet food compositions comprising stearidonic acid (. . . referenced . . . as ‘SDA’). SDA is an omega-3-fatty acid.” (Spec. 4.)

FF2 According to the Specification:

[T]he pet food composition comprises an amount of SDA effective to provide a function selected from promotion of bone health, promotion of chondrocyte function, maintenance of tissue concentration of omega-3-fatty acids, promotion of tissue concentration of omega-3-fatty acids, and combinations thereof in a pet following administration (preferably oral administration) to the pet. . . . As used herein, the term “effective amount,” with reference to the SDA used herein, means that amount of SDA sufficient to provide the referenced benefit. The specific “effective amount” will vary with such factors as the physical condition of the pet, physiological state, age, gender, breed, duration of treatment, the nature of concurrent therapy (if any), the specific form of composition to be used

(*Id.* at 5.)

FF3 In one aspect, the invention is drawn to promoting joint health in a pet, including “preventing, inhibiting, ceasing and / or reversing the actions associated with inflammation, as inflammatory joint disease (*Id.* at 8.)

FF4 Claims 1-3 and 5-19¹ stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Ursin and Railey (Ans. 3). As Appellants do not argue the claims separately, we focus our analysis on independent

¹ The Answer refers to claims 1, 3, and 5-19 (Ans. 3), but we assume the reference to “1, 3” is a typo as the Final Rejection rejects claims 1-3 and 5-19 (F. Rej. 2), as does the Appeal Brief (App. Br. 3).

claim 1, and claims 2, 3, and 5-19 stand or fall with that claim. 37 C.F.R. § 41.37(c)(1)(vii).

FF5 The Examiner finds that Ursin teaches that SDA “is an omega-3 fatty acid which can be administered orally via ingestion of enhanced foodstuffs and intermediate moisture foods (i.e., dog food) enriched in stearidonic acid.” (Ans. 3.) The Examiner further finds that Ursin teaches that the SDA “is used to treat inflammatory disorders such as rheumatoid arthritis.” (*Id.*)

FF6 Specifically, Ursin teaches that SDA down-regulates TNF- α and/or IL-1 β in a mammal exhibiting elevated concentrations of the same due to an inflammatory disorder (Ursin ¶23). Ursin also teaches that rheumatoid arthritis is one such inflammatory disorder (*id.*).

FF7 According to Ursin, a therapeutically effective amount of SDA is about 0.01 g/day to about 10 g/day (*id.* at ¶24). Ursin teaches, however, that the amount to be administered for treating an inflammatory disorder depends on a variety of factors, but that “[o]ne of skill in the art will appreciate that the dosage regime or therapeutically effective amount of SDA may need to be optimized . . . and can be determined without undue experimentation.” (*Id.* at ¶71.)

FF8 In addition, Ursin teaches that mammals to be treated include companion animals such as dogs and cats (*id.* at ¶43), and specifically teaches that the SDA may be administered orally via a foodstuff, including an intermediate moisture food such as dog food (*id.* at ¶65).

FF9 The Examiner notes that Ursin does not specifically disclose the weight percentage of the SDA (Ans. 3).

FF10 Railey is cited for teaching that SDA is contained in hemp seed oil, and may be used to treat rheumatoid arthritis and may be used in animal food and bird food (*id.* at 4.)

FF11 The Examiner concludes:

One of ordinary skill in the art would have been motivated to add stearidonic acid to pet food because the addition of stearidonic acid thereto would have assured an added benefit of the anti-inflammatory property of stearidonic acid in treating rheumatoid arthritis and osteoporosis. It was clear from Ursin [] that stearidonic acid is used to treat rheumatoid arthritis (i.e., joint health) and osteoporosis (i.e., bone health). In addition, stearidonic acid is used in animal feed. Therefore, one of ordinary skill in the art at the time the claimed invention was made would have had a reasonable expectation that stearidonic acid, such as found in hemp seed oil, could be incorporated into a pet food composition to benefit animals, including with respect to bone and joint health.

(*Id.*)

PRINCIPLES OF LAW

The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) secondary considerations of nonobviousness, if any. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The Supreme Court has recently emphasized that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*

Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007). In addition, determining the optimum values of result effective variables is ordinarily within the skill of the art. *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980); see also *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) (“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”).

ANALYSIS

Appellants argue that “[w]hile Ursin does disclose the use of SDA, such use is limited to amounts that are effective to alter the blood concentration of “TNF- α and IL-1 β . γ ” (App. Br. 4.) According to Appellants, “[t]here is no teaching or suggestion regarding what levels of SDA might be appropriate for promoting bone and/or joint health generally, and not related to auto-immune conditions.” (*Id.*) Thus, Appellants conclude, “because there is no indication in Ursin that SDA would be useful for bone and joint health generally vs. with respect to inflammatory or auto-immune conditions, there is no indication that SDA is a result-effective variable to be routinely optimized.” (*Id.* at 5.)

As to Railey, Appellants argue again that there is no indication in Railey that the amount of SDA is a result-effective variable (*id.*). In addition, Appellants assert, the animals disclosed in Railey do not include cats and dogs, and as Railey does not disclose any particular amount of SDA, not all elements of the invention are taught by that reference (*id.*).

Appellants’ arguments are not found to be convincing. Ursin teaches all of the limitations of claim 1 except for specifically teaching that the SDA

is present in an amount of 0.001% by weight of the composition (FF8-9). Ursin, however, teaches that the SDA may be administered to treat rheumatoid arthritis (FF6), as does the Specification (FF3 (note that rheumatoid arthritis is an inflammatory joint disease)). In addition, both Ursin (FF7) and the Specification (FF2) teach that the exact amount can be determined by routine experimentation. Thus, it would have been obvious to optimize the amount of SDA in a dog food to treat rheumatoid arthritis.

We note further that the claims only require that the SDA is present in an amount of 0.001% by weight of the composition, which is a small amount. Moreover, Ursin teaches that a therapeutically effective amount of SDA is about 0.01 g/day to about 10 g/day. Finally, while Appellants argue that there is no indication in Ursin that SDA would be useful for bone and joint health generally vs. with respect to inflammatory or auto-immune conditions, Appellants have provided no evidence that the amounts of SDA required to treat rheumatoid arthritis would be lower than the .001% by weight of the composition required by claim 1.

As to Railey, in reference to claim 1, we find that it is cumulative to the teachings of Ursin, and thus do not discuss it further.

CONCLUSIONS OF LAW

We conclude that Appellants have not demonstrated that the Examiner erred in concluding that the references relied upon provide motivation to optimize the amount SDA to arrive at the amount required by claim 1, and the rejection of claims 1-3 and 5-19 under 35 U.S.C. § 103(a) over the combination of Ursin and Railey, is affirmed.

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TIME LIMITS

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

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