

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RUTH LIPMAN

Appeal 2006-3407
Application 10/278,114
Technology Center 1600

Decided: November 9, 2007

Before LORA M. GREEN, NANCY J. LINCK, and
RICHARD M. LEBOVITZ, *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 19, 20, and 23-35.¹ We have jurisdiction under 35 U.S.C. § 6(b). Claim 19 is representative of the claims on appeal, and reads as follows:

¹ This Appeal is related to Appeal No. 2005-0124, USSN 10/035,305, decided August 17, 2005.

19. A composition for repelling animals from a living plant, comprising:
a living plant;
an extract from an Alliaceae family, *Allium* genus; and
at least one chicken egg, having a yolk portion, wherein the extract
and at least one egg, having a yolk portion is applied on the living plant.

The Examiner relies on the following references:

Messina	US 4,965,070	Oct. 23, 1990
King	US 5,417,973	May 23, 1995
Sasaki (translation)	JP-A-139515	Jun. 1, 1989

We note that in response to an election of species requirement set forth by the Examiner, Appellant elected to prosecute onion plants from the genus and species *Allium cepa* (Answer 2). We have limited our consideration of the issues accordingly.

We affirm.

BACKGROUND

The present invention is drawn to a repellent “to protect property from damage from animals without posing . . . risk of irritation for the humans handling it.” (Specification 2.) The repellent contains an extract from a plant from the family Alliaceae, genus *Allium*, and may be applied to substrates such as plants, living animals, inanimate objects, and combinations thereof (*id.*).

DISCUSSION

Claims 19, 20, and 23-35 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Messina in view of King (Answer 3).

Messina is cited for teaching a composition comprising eggs (which naturally contain lecithins and phospholipids), thiram and hot pepper sauce

to a plant in order to repel animals, specifically deer, from plants (Answer 3). The hot pepper sauce acts as a respiratory irritant (*id.*).

King is cited for also teaching the use of hot pepper sauce to repel animals from substrates that are potentially damaged by animals, in which the smell of the extract repels the animal from the substrate (*id.*). King is also cited for teaching that onion extract can be used in place of the hot pepper extract, and that the onion may be extracted and dried (*id.*).

According to the Examiner, from the teachings of King, a person of ordinary skill in the art at the time the invention was made

would reasonably expect that hot pepper extracts and onion extracts function equivalently in their ability to repel an animal from a substrate that needs to be protected from damage. Based on this reasonable expectation that onion extract will function equivalently to the hot pepper extract in [Messina], a person of ordinary skill in the art would be motivated to substitute the hot pepper extract with an onion extract. Thus, this substitution would yield a composition comprising a living plant coated with a composition that comprises onion extract, thiram and egg.

(*Id.* at 3-4.)

The Examiner notes that the references as combined “do not specifically teach adding the ingredients in the amounts [specified] by [Appellant],” but asserts that the amount of the ingredients in the composition is a result effective variable, and it would be obvious to optimize the amounts (*id.* at 4). As to ornamental plants, the Examiner states that all of the plants claimed by Appellant are well known ornamental plants, and it would be obvious to the ordinary artisan to protect any of those plants as the plant disclosed in Messina (*id.*).

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 v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 1739. Moreover, an “[e]xpress suggestion to substitute one equivalent for another need not be present to render such substitution obvious.” *In re Fout*, 675 F.2d 297, 301 (CCPA 1982).

As to claims 19, 25, 27, and 32, of which we choose claim 19 to be representative, Appellant argues that there is no motivation to combine Messina with King, as Messina teaches repelling only deer, while King is drawn to repelling carnivores from a dead carcass (Br. 7).

Appellant argues further that neither Messina nor King either alone or in combination, suggests that hot pepper extracts and onion extracts function equivalently to repel animals (*id.* at 8). Messina, according to Appellant, teaches that hot pepper sauce may irritate a respiratory system, whereas King does not teach a function for hot pepper sauce and onion extracts in repelling pests (*id.*).

Appellant's argument is not convincing. Both Messina and King deal with protecting a substrate, such as a living plant in Messina, and a dead carcass in King, from an animal. We recognize that Messina only specifically refers to deer. King, however, teaches that the repellent is applicable to a wide variety of pests, such as insects, cats, dogs, birds, and other pests (col. 1, ll. 19-23). King also teaches that either pepper or extracts of onion may be used. Thus, the ordinary artisan would have expected that substituting onion as taught by King for the pepper as taught by Messina would have also repelled animals such as deer, as King teaches that repellents such as pepper and onion repel a wide variety of pests.

As noted by the United States Supreme Court,

If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill would recognize that it would improve similar devices in the same way, using the technique is obvious unless its application is beyond his or her skill.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1740 (2007). Moreover, “the 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 would employ.” *Id.* at 1741. Here, the prior art establishes that both pepper and onion are known to repel animals, such as deer, cats, dogs, birds, and insects, thus providing a reason that would have prompted the ordinary artisan to substitute onion for pepper in the composition of Messina. *Id.* at 1742 (“One of the ways in which a patent's subject matter can be proved obvious is by noting that there

existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.”).

Claim 32 requires the addition of a phospholipid or a lecithin, wherein the lecithin or phospholipid is from a chicken egg. Appellant argues further as to claim 32 that “nowhere do the Examiner's cited prior art nor does the Examiner support the rejection of Claim 32 with prior art that teaches or suggests a composition containing lecithin or phospholipid, as claimed in Appellant's Claim 32.” (Br. 9.)

As noted by the Examiner (Answer 9), the Specification (p.17) teaches that lecithin and phosphatidylcholine are found in egg yolks. As Messina teaches using whole eggs (abstract), the composition would naturally contain lecithin and phosphatidylcholine.

Claim 20 is drawn to the composition of claim 19, wherein the Allium genus is selected from the group consisting of ramp, onions, chives, shallots, scallions, leeks, wild leek, garlic, garlic chives, wild garlic, ransoms and combinations thereof. As to claim 20, Appellant argues that the Examiner does not support her position that Allium cepa is one of the mentioned varieties of onion (Br. 10).

As noted by the Examiner (Answer 9), the Markush group was specifically examined for the elected species, onion, whose botanical name is Allium cepa. We also note that the Specification (p. 4) teaches that Allium cepa is the botanical name for onion.

Claim 23 is drawn to the composition of claim 19, wherein the living plant includes ornamental plants. As to claim 23, Appellant argues that the Examiner “does not support her rejection of Claim 23 that claims the living plant is an ornamental plant.” (Br. 10-11.)

Claim 24 is drawn to the composition of claim 23, wherein the ornamental plant is selected from the group consisting of hosta, lily, gerber daisy, azalea, and combinations thereof. As to claim 24, Appellant argues that the Examiner does not support her rejection that the ornamental plant is selected from the group consisting of hosta, lily, gerber daisy, azalea, and combinations thereof, and that none of the cited prior art teaches or suggests that the living plant is an ornamental plant (Br. 11).

We find that the ordinary artisan would have applied the composition to any ornamental plant, such as hosta, lily, azalea, etc., in order to protect those plants from animal pests such as deer. Note that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton. *KSR*, 127 S. Ct. at 1742.

Claims 26, 28, and 30 specify the form and concentration of the onion extract, and claim 31 specifies the amount of egg containing the egg yolk used. As to claims 26 and 28-31, Appellant argues that the Examiner is wrong in asserting that they are result effective variables, as they are not recognized as such in the prior art cited by the Examiner (Br. 12-13).

As noted by the Examiner, “the references do teach that the concentration of the specific ingredients is a variable that can be optimized. Both references teach adding each of the individual ingredient[s] in a variety of amounts (for example, see claims of [Messina] and column 2 of [King]). Thus, this teaching of varying the ingredient amount shows that the references consider the concentration of the ingredient amount to be a variable that can be optimized during routine experimentation and product development.” (Answer 10.) It would also be within the level of skill of the

ordinary to vary the concentration of repellent, such as the onion, in the composition, to achieve the desired repellent effect.

Claim 33 specifies the lecithin concentration, claim 34 specifies the phospholipid concentration, and claim 35 specifies that the phospholipid is phosphatidylcholine. As to claims 33-35, Appellant argues that the prior art does not teach or suggest the claimed limitations (Br. 14).

As to claim 35, phosphatidylcholine is found in eggs yolks, thus it would be naturally present in the composition of Messina. Moreover, it would have also been obvious to optimize the concentrations of lecithin and phospholipid (*i.e.*, the amount of egg used) for the reasons set forth above, as Messina teaches that the egg also acts as a deterrent (col. 2, ll. 67-68).

Claims 19, 20, and 23-35 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Messina in view of Sasaki (Answer 6).

Messina is relied upon as in the previous combination (Answer 6).

Sasaki is relied upon for teaching the use of pepper to repel animals from substrates that may be potentially damaged by them, and for teaching that onion extract may be used in the place of pepper (*id.*). Thus, given the teachings of Sasaki, according to the Examiner,

a person of ordinary skill in the art would reasonably expect that pepper and onion function equivalently in their ability to repel an animal from a substrate that needs to be protected from damage. Based on this reasonable expectation that onion will function equivalently to the pepper in [Messina], a person of ordinary skill in the art would be motivated to substitute the hot pepper extract with onion. Thus, this substitution would yield a composition comprising a living plant coated with a composition that comprises onion, thiram and egg.

(*Id.*)

As to ornamental plants, the Examiner states that all of the plants claimed by Appellant are well known ornamental plants, and it would be obvious to the ordinary artisan to protect any of those plants as the plant disclosed in Messina (*id.* at 6).

Appellant argues claims 19 and 25 as a separate group. As Appellant does not argue claims 26-35 separately, we group those claims with claims 19 and 25, and we choose claim 19 to be representative.

Appellant argues that there is no motivation to combine Messina with King, as Messina teaches repelling only deer, while Sasaki is drawn to repelling dogs, cats, and birds (Br. 16).

Appellant argues further that neither Messina nor Sasaki, either alone or in combination, suggests that hot pepper extracts and onion extracts function equivalently to repel animals (Br. 16).

Appellant's argument is not convincing. Both Messina and Sasaki deal with protecting a substrate, such as a living plant in Messina, from an animal. We recognize that Messina only specifically refers to deer. Sasaki, however, teaches that the repellent is applicable to a wide variety of pests, such as cats, dogs, and birds (Translation, p. 2). Sasaki also teaches that either pepper or extracts of onion may be used (*id.* at 4). Thus, the ordinary artisan would have expected that substituting onion as taught by Sasaki for the pepper of Messina would have produced a composition which would have also repelled deer, as Sasaki teaches that repellents such as pepper and onion repel a wide variety of pests.

Claim 20 is drawn to the composition of claim 19, wherein the *Allium* genus is selected from the group consisting of ramp, onions, chives, shallots, scallions, leeks, wild leek, garlic, garlic chives, wild garlic, ransoms and

combinations thereof. As to claim 20, Appellant argues that the Examiner does not support her position that *Allium cepa* is one of the mentioned varieties of onion (Br. 17).

As already noted, the Markush group was specifically examined for the elected species, onion, whose botanical name is *Allium cepa*. We also note that the Specification (p. 4) teaches that *Allium cepa* is the botanical name for onion.

Claim 23 is drawn to the composition of claim 19, wherein the living plant includes ornamental plants. As to claim 23, Appellant argues that the Examiner “does not support her rejection of claim 23 that claims the living plant is an ornamental plant.” (Br. 18.)

Claim 24 is drawn to the composition of claim 23, wherein the ornamental plant is selected from the group consisting of hasta, lilly, gerber daisy, azalea, and combinations thereof. As to claim 24, Appellant argues that the Examiner does not support her rejection that the ornamental plant is selected from the group consisting of hosta, lily, gerber daisy, azalea, and combinations thereof, and that none of the cited prior art teaches or suggests that the living plant is an ornamental plant (Br. 18-19).

As noted above, we find that the ordinary artisan would have applied the composition to any ornamental plant, such as hosta, lily, azalea, etc., in order to protect those plants from animal pests such as deer, dogs, cats, and birds.

CONCLUSION

In summary, we conclude that the Examiner has set forth a prima facie case of obviousness over claims 19, 20, and 23-35 that has not been

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adequately rebutted by Appellant. Thus, the rejections over the combination of Messina with either King or Sasaki are affirmed.

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

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