

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID W. KOENIG,
ANNASTACIA KISTLER,
RICHARD J. SCHMIDT
and BRUCE S. WILLIAMSON

Appeal 2008-2175
Application 10/192,053
Technology Center 1700

Decided: April 14, 2008

Before EDWARD C. KIMLIN, CATHERINE Q. TIMM, and
ROMULO H. DELMENDO, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-9, 11-23, and 102. Claim 1 is illustrative:

1. A cleaner for removing an allergen from a surface, the cleaner comprising a wipe and an allergen binding lectin immobilized onto the wipe, wherein the cleaner comprises from about 0.00001% to about 10% (by total

weight of the treated cleaner) of the lectin, and wherein the wipe comprises a material selected from the group consisting of meltblown materials, coform materials, air-laid materials, bonded-carded web materials, hydroentangled materials, and combinations thereof.

The Examiner relies upon the following references as evidence of obviousness:

Forsgren	5,718,909	Feb. 17, 1998
McAtee	6,153,208	Nov. 28, 2000
Koenig	WO 01/28511 A2	Apr. 26, 2001

Appellants' Admission of Prior Art, page 5, lines 19-26, of the instant Specification.

Appellants' claimed invention is directed to a cleaner for removing an allergen, e.g., animal dander, from a surface. The cleaner comprises a wipe having an allergen binding lectin immobilized therein in the recited concentration. According to Appellants, "[u]pon contacting the allergen, the lectin binds or bonds to one or more carbohydrate or sugar moieties located on the surface structure of the allergen such that the binding or bonding strength between the allergen and the lectin exceeds the forces retaining the allergen on the surface thereby allowing the allergen to be lifted from the surface onto the cleaner for removal" (Principal Br. 4, second para.).

Appealed claims 1-9, 11-23 and 102 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Forsgren in view of Koenig and McAtee or the Admitted Prior Art found at page 5 of the present Specification.

Appellants have not set forth an argument that is reasonably specific to any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 1.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

There is no dispute that Forsgren, like Appellants, discloses a cleaner for removing bacteria from a surface comprising a wipe that contains a carbohydrate derivative or binding ligand. As acknowledged by the Examiner, Forsgren fails to disclose that the wipe contains an allergen binding lectin, as presently claimed. However, as conceded by Appellants, Koenig, one of the present inventors, expressly discloses the use of lectins to remove contaminants and debris from a surface, such as human skin.

A principal argument advanced by Appellants is that the lectins of Koenig are bound to particles that are applied to the surface containing the allergen and are not, therefore, immobilized on a wipe as required by the appealed claims. Appellants conclude, therefore, that one of ordinary skill in the art would not have found the requisite suggestion to immobilize the lectins of Koenig on the wipe of Forsgren.

We are not persuaded by Appellants' argument. Significantly, Koenig expressly discloses that "the particles may be applied using a non-magnetic, cellulosic or polymeric wipe which is wiped across the surface of the skin" (Koenig 10, ll. 28-30). Koenig teaches that "[t]he particles may either be applied directly, such as using a wipe, or may be included in a carrier which is applied to the surface" (Koenig 12, ll. 11-13). Accordingly, we find in

Koenig a clear teaching that the particles containing the lectin can be incorporated into a wipe and immobilized therewith for future use. We note that the claim language "binding lectin immobilized onto the wipe" does not require a permanent binding of the lectin to the wipe, and it is our view that claim 1 on appeal encompasses within its scope Koenig's wipe that contains lectin. Indeed, it would appear that Koenig fairly describes cleaners embraced by claim 1 within the meaning of 35 U.S.C. § 102.

Moreover, assuming arguendo, that the lectins of Koenig are not considered to be "immobilized" on a wipe, we are confident that one of ordinary skill in the art would have found it obvious to modify the binding strength between the lectin and the wipe contingent upon the effectiveness of the lectin for binding to the allergen and removing it. For instance, based on the stubbornness of the allergen, one of ordinary skill in the art would have understood that a residence time for the lectin on the surface might be required for effectively binding and removing the allergen from the surface. On the other hand, some allergens may only require contact with a lectin on a wipe to be neutralized. Hence, we find that it would have been obvious for one of ordinary skill in the art to vary the degree of immobility of a lectin on a wipe in accordance with the nature of the allergen being targeted.

As for the claimed concentration of the lectin, the Examiner has properly stated the well settled law that where patentability is predicated upon a change in condition of a prior art composition, such as a change in concentration or the like, the burden is on the applicant to establish with objective evidence that the change is critical, i.e., it leads to a new, unexpected result. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). We note that Appellants have

proffered no objective evidence which demonstrates any such criticality attaching to the claimed concentration for the lectin. Furthermore, we observe that Koenig specifically discloses that the amount of particles and, therefore, the concentration of lectin, depends on several factors, including the carrier used, the amount of contaminant, and the nature of the contaminant (*see* page 10, lines 30 et seq.). Consequently, Koenig defines the concentration of lectin as a result effective variable, and it is by now axiomatic that it is a matter of obviousness for one of ordinary skill in the art to determine the optimum value of such a variable. *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980).

As for the obviousness of replacing the carbohydrate of Forsgren with a lectin, we agree with the Examiner that it would have been obvious for one of ordinary skill in the art to resort to routine experimentation to determine if such a modification, the substitution of one active ingredient for another, is effective. Appellants have advanced no reason why one of ordinary skill in the art would have been dissuaded from using a lectin with a wipe of the type disclosed by Forsgren. Indeed, as discussed above, Koenig expressly teaches incorporating a lectin in a wipe. Also, although not necessary for a finding of obviousness, we point out that appealed claim 1 does not preclude the lectin being bound to a particle when incorporated in the wipe.

As a final point, we note that Appellants base no argument upon objective evidence of nonobviousness.

In conclusion, based on the foregoing, the Examiner's decision rejecting the appealed claims is affirmed.

Appeal 2008-2175
Application 10/192,053

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)(effective Sept. 13, 2004).

AFFIRMED

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