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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YOSHIHISA OTA and EMI AMANO

Appeal 2019-002003
Application 14/391,051
Technology Center 3700

BEFORE STEFAN STAICOVICI, MICHAEL J. FITZPATRICK, and
LISA M. GUIJT, *Administrative Patent Judges*.

GUIJT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE the Examiner's rejection of claims 1–20 and enter a NEW GROUND OF REJECTION for claims 15–17 pursuant to our authority under 37 C.F.R. § 41.50(b).

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant, Livedo Corporation, identifies itself as the sole real party in. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to “a technique for improving condensation on absorbent articles.” Spec. ¶ 1. Claims 1 and 13 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An outer absorbent article combined with an inner absorbent article, comprising an absorbent body composed of at least one absorption layer, wherein the absorbent body includes a water-absorbent resin powder satisfying following requirements of (a) to (d),

(a) Specific surface area measured by BET multipoint method: $0.040 \text{ m}^2/\text{g}$ to $0.200 \text{ m}^2/\text{g}$;

(b) Vapor blocking ratio: 0% to 0.90%,

(c) Absorption ratio: 30 g/g to 70 g/g, and

(d) Water retention amount: 20 g/g to 60 g/g;

when (b) the vapor blocking ratio is measured as follows:

10g of the water-absorbent resin powder is uniformly placed in a 5 cm-diameter plate made of aluminum, and left still for 2 hours in a constant temperature-and-humidity chamber of 50 degrees centigrade at a relative humidity of 80% RH, afterward the mass (TOT) of the measuring sample is measured, and the measuring sample is gently sieved using a 12-mesh wire net, the mass (ON) of a powdered object of the measuring sample that has not passed the 12-mesh wire net due to blocking caused by moisture absorption is measured, and the vapor blocking ratio (%) is obtained according to the formula,

$$\text{Vapor blocking ratio (\%)} = \text{ON} \times 100 / \text{TOT},$$

when (c) the absorption ratio is measured as follows:

1g of the water-absorbent resin powder is placed in a bag-form tea bag (10 cm x 20 cm) made of a nylon textile having a sieve-opening of 57 micrometers (255-mesh), and the opening of the tea bag is heat sealed, next, 1 liter of 0.9 mass% saline solution is poured into a beaker having a capacity of 1

liter, and the tea bag is immersed therein for 1 hour, after the immersion, the tea bag is hung for 10 minutes to remove excessive water, and the total weight (F1) is measured, and as a blank, the weight (F0) of a tea bag not having placed therein the water-absorbent resin and having performed thereon the same operation is measured, the absorption ratio (g/g) of the water-absorbent resin powder is obtained according to the following formula,

$$\text{Absorption ratio (g/g)} = (F1-F0) / \text{Sample mass},$$

when (d) the water retention amount is measured as follows:

1g of the water-absorbent resin powder is placed in a bag-form tea bag (10 cm x 20 cm) made of a nylon textile having a sieve-opening of 57 micrometers (255-mesh), and the opening of the tea bag is heat sealed, next, 1 liter of 0.9 mass% saline solution is poured into a beaker having a capacity of 1 liter, and the tea bag is immersed therein for 1 hour, after the immersion, the tea bag is hung for 10 minutes to remove excessive water, the tea bag obtained is placed in a basket type centrifugal dehydrator having a diameter of 30 cm, dehydrated at 1000 rpm (centrifugal force: 167 G) for 90 seconds, and then its total weight (R1) is measured, and as a blank, the weight (R0) of a tea bag not having placed therein the water-absorbent resin and having performed thereon the same operation is measured, the water retention amount (g/g) of the water-absorbent resin is obtained according to the formula,

$$\text{Water retention amount (g/g)} = (R1 - R0 - \text{Sample mass}) / \text{Sample mass}.$$

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Tomes	US 8,388,585 B2	Mar. 5, 2013
Nawata	EP 1 291 368 A1	Mar. 12, 2003
Ishizaki	WO 2005/092955 A1	Oct. 6, 2005

REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tomes, Ishizaki, and Nawata.

OPINION

Independent claims 1 and 13, and claims 2–12, 14, and 18–20 depending therefrom

Regarding independent claims 1 and 13, the Examiner finds that Tomes discloses an absorbent body composed of at least one absorbent layer including a water-absorbent resin powder, as claimed. Final Act. 3 (citing Tomes 3:43–46). The Examiner relies on Nawata for disclosing claim requirement (a) and on Ishizaki for disclosing a water-absorbent resin powder meeting the claim requirements (b) to (d). *Id.* at 3–5. Regarding Nawata and claim requirement (a), the Examiner reasons that it would have been obvious “to provide the absorber of Tomes[, as modified by Ishizaki,] with the specific surface area as taught by Nawata because such a specific surface area is particularly good at absorbing polymer containing viscous liquids for successful use in absorbent articles.” *Id.* at 4 (Nawata, Abstract, ¶ 1); Ans. 8.

Appellant argues that Tomes’ shell 30, which corresponds to the claimed outer absorbent article, “does not include the required water absorbent resin.” Appeal Br. 7. Appellant submits that Tomes discloses “‘**absorbent pad 20** may also comprise one or more intermediate layers 42 having one or more absorbent materials 44,’ which ‘may comprise superabsorbent polymer particles containing water-absorbing resins.’” *Id.* (citing Tomes 3:41–46). Appellant concludes that “a constituent member including the absorbent material 44 is ‘the absorbent pad 20,’ not ‘the shell

30” and that “there is no disclosure that ‘the shell 30’ includes absorbent material 44.” *Id.* Appellant maintains that the claims require “the outer absorbent article includes the specific water-absorbent resin powder satisfying requirements (a) to (d).” *Id.*; *see also* Reply Br. 2 (“the absorbent body is a part of the claimed outer absorbent article, so that the outer absorbent article and the absorbent body should not be considered separately” and “the water absorbent resin powder is a part of the claimed outer absorbent article”).

The Examiner correctly responds that Appellant’s argument “is not commensurate with the scope of the claim[s],” in that “[c]ontrary to Appellant’s assertion, the shell is not required to include a water absorbent resin powder.” Ans. 4–5.

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). A claim construction analysis begins with, and is centered on, the claim language itself. *See Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001). “While we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014). Finally, construing claims broadly during prosecution is not unfair to the applicant, because the applicant has the opportunity to amend the claims to obtain more precise claim coverage. *Am. Acad.*, 367 F.3d at 1364.

Claims 1 and 13 recite, as the preamble: “[a]n outer absorbent article combined with an inner absorbent article.” Appeal Br. 16, 19 (Claims

App.). Claims 1 and 13 further recite that the article recited in the preamble *comprises* “an absorbent body.” *Id.* The Specification discloses that “[a]s absorbent articles represented by disposable diapers, there are known absorbent articles in which an inner absorbent article such as a urine absorption pad is attached to an outer absorbent article such as a diaper outer body.” Spec. ¶ 2. Thus, the article recited in the preamble of claims 1 and 13, namely, “[a]n outer absorbent article combined with an inner absorbent article,” as claimed, may be a disposable diaper including a urine absorption pad attached to a diaper outer body. In comparison to known absorbent articles, the Specification discloses that the claimed improvement involves “*an outer absorbent article having an absorbent body composed of at least one absorption layer, wherein the absorbent body includes a water-absorbent resin powder satisfying [certain conditions].*” *Id.* ¶ 8 (emphasis added). In other words, the Specification discloses that the intended claimed improvement to known disposable diapers is to include within *the outer absorbent article* an absorbent body composed of water-absorbent resin powder.

We determine, however, that the preamble of claims 1 and 13, as written, recite “[a]n outer absorbent article *combined with* an inner absorbent article” (emphasis added), such that *the combination* of the outer and inner absorbent articles must somehow comprise or include the absorbent body as claimed. In other words, contrary to Appellant’s interpretation, we do not construe the preamble of claims 1 and 13 to mean that the outer absorbent article alone must comprise the claimed absorbent body, as may have been intended.

Thus, although Appellant’s argument that the water-absorbing resin powder disclosed in Tomes is located within layers of 42 of absorbent pad 20, which is attached to outer shell 30, claims 1 and 13 read on Tomes, wherein the combination of Tomes’ pad 20 and shell 30 comprise an absorbent body composed of a layer including water-absorbent resin powder. *See, e.g.*, Tomes 3:30–48, Fig. 3.

Notwithstanding, we are persuaded by Appellant’s argument that the Examiner’s reason for modifying Tomes’ disposable urine collector to have water-absorbing resin powder with a specific surface area in the claimed range, in view of Nawata, lacks rational underpinning. As set forth *supra*, the Examiner’s reasoning is that such a modification would have been obvious to a skilled artisan “because such a specific surface area is particularly good at absorbing polymer containing viscous liquids for successful use in absorbent articles.” Final Act. 4.

In particular, Appellant correctly submits that “the absorbent article disclosed in Nawata is limited to *sanitary napkins and disposable diapers for newborns*, and does not include *disposable diapers for adults* for mainly absorbing urine,” such that “one skilled in the art would not be motivated to select the properties of the water-absorbent resin that is suitable for absorbing polymer-containing viscous liquids, instead of urine disclosed in Nawata, to the water-absorbent resin in outer absorbent articles used mainly for absorbing urine.” Appeal Br. 13. Appellant also correctly submits that

the inventive object of Nawata is to provide a water-absorbent resin suitable for absorbing polymer-containing viscous liquids such as blood, blood-containing body fluid, stool and other types of fecal matter, and to provide an absorbent core and an absorbent article using the same, and clearly discloses . . . that the watery stool is the watery stool of **a newborn or an infant**

whose staple food is milk. Nawata further clearly discloses . . . the water retention capacity of the water-absorbent resin **is kept lower** in relation to the level considered optimal for absorbing human urine.

Reply Br. 7 (citing Nawata ¶¶ 1, 2, 8, 19).

Indeed, Tomes discloses a “disposable urine collection device” for urine (Tomes, Abstract), a fluid which Nawata specifically distinguishes from the viscous liquid absorbed by the water-absorbing resin particles used in Nawata’s absorbent article (*see, e.g.*, Nawata, Abstract). Specifically, Nawata distinguishes viscous liquid from urine, as follows:

[I]t was discovered that polymer-containing *viscous liquids* can be absorbed with exceptional efficiency by a water-absorbent resin whose properties are controlled such that *the specific surface area of the water-absorbent resin is kept higher* and the water retention capacity is kept *lower in relation to the level considered optimal for absorbing water or human urine*.

Id. ¶ 19 (emphasis added). Thus, the Examiner’s proposed modification to Tomes’ water-absorbing resin powder for absorbing urine, in view of Nawata’s teachings regarding viscous liquids *other than urine*, lacks rational underpinning.

Accordingly, we do not sustain the Examiner’s rejection of independent claims 1 and 13, and independent claims 1 and 13, and claims 2–12, 14, and 18–20 depending therefrom.

Dependent claims 15–17

Claim 15, which depends from independent claim 6, recites, in relevant part, “wherein *the* absorbent article is an adult diaper *outer* body.” Appeal Br. 21 (Claims App.) (emphasis added). Independent claim 6 recites

“[a]n absorbent article comprising the outer absorbent article according to claim 1”—which is, according to our claim construction *supra*, in relevant part, the “outer absorbent article *combined with* an inner absorbent article” (emphasis added), the combination “comprising an absorbent body,” and further according to claim 6, “wherein the inner absorbent article is attached to an inner side of the outer absorbent article.” *Id.* at 18 (Claims App.).

Thus, claim 6 recites a *new* article, namely, “[a]n absorbent article,” wherein the inner absorbent article of claim 1 is further *attached to* an inner side of the outer absorbent article of claim 1. Claim 15 further limits the absorbent article of claim 6 by requiring the absorbent article to be further combined with “an inner absorbent article,” which lacks antecedent basis, and claim 15 also requires the absorbent article of claim 6—which comprises an outer absorbent article attached to an inner absorbent article, as well as a possible additional inner absorbent article—to be an adult diaper *outer* body. The Specification discloses that “the present invention is described based on one embodiment of a diaper outer body (outer absorbent article) to which a urine absorption pad is attached as an inner absorbent article for use.” Spec. ¶ 104. In other words, the Specification describes the *outer* absorbent article as a diaper *outer* body, and not including the inner absorbent article. As such, it is unclear which structures are intended to comprise the outer body of an adult diaper pursuant to claim 15.

The PTO can properly reject a claim as indefinite if the claim is ambiguous, vague, incoherent, opaque, or otherwise unclear. *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014).

Accordingly, we enter a NEW GROUND OF REJECTION for claim 15, and claims 16 and 17 based on their dependency from claim 15, under

35 U.S.C. § 112, second paragraph. Because we have concluded that claims 15–17 are indefinite, the prior art rejection of claims 15–17 must fall because it is necessarily based on a speculative assumption as to the meaning of the claims. *In re Steele*, 305 F.2d 859, 862 (CCPA 1962). Accordingly, we do not sustain the Examiner’s rejection of claims 15–17 under 35 U.S.C. § 103(a) as unpatentable over Tomes, Nawata, and Ishizaki.

CONCLUSION

The Examiner’s rejection of claims 1–20 under 35 U.S.C. § 103(a) is REVERSED.

We enter a NEW GROUND OF REJECTION of claims 15–17 under 35 U.S.C. § 112, second paragraph, as indefinite.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed	New Ground
1–20	103(a)	Tomes, Nawata, Ishizaki		1–20	
15–17	112, second paragraph				15–17
Overall Outcome				1–20	15–17

TIME PERIOD FOR RESPONSE

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. . . .

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

REVERSED; 37 C.F.R. § 41.50(b)